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Aerial Phenomena - YouTube\par

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Transcript:\par

(00:14) [Music] hi and welcome to PostScript nice to have you with us today I'm John Peterson from the Arlington Institute and we get together like this about once a month and it's usually associated with our program that we do locally call transition talks the Arlington Institute for almost 30 years now has sponsored a speaker series where we bring marvelous provocative interesting speakers from all over the world to come and talk about the extraordinary change that's going on in the world today we're in the\par

(00:52) middle of annek an amazing kind of transition from one ERA to a new one and the new world is going to be populated by new humans that operate in different ways and have different characteristics and the new world is going to have a whole new set of values and other such things it's a literally a paradigm shift and so we're happy to have our old friend dr.\par

(01:23) Harold put off with us here today how it's nice to have you with us thanks I'm good to be your you and I go back quite a ways yes many hours many towns other play all around the world kind of doing on one thing or another for our for our viewers you're a quantum physicist by education beauty and I guess you're best known for being in their early seventies starting the remote-viewing program at SR I which was that Stanford Research Institute I'm and were use psychics to essentially for those governments to spy on us for the\par

(02:15) CIA and yeah yeah yeah tell us quickly about that and then we'll talk about some other kind of things well I was a straight physicist got my PhD at Stanford had just published quantum electronics book graduate level published in English French and Russian and one of the things that kind of bugged me was well what about consciousness is that can you account for that in our physics and so on so I was kind of searching around for ways to look into that kind of thing and so just on a lark I didn't experiment with a famous psychic who\par

(02:55) perturbed some well-shielded quantum chips and yeah Ingo Swann yeah and I circulated that around and so suddenly the CIA landed on my doorstep and said oh we've been looking for you you know the Russians and East Bloc countries are spending millions of dollars a year on quote ESP and no scientists in America even believes there is such they had and turns out I am I my my background aside from my physics has been an intelligence community I was a naval intelligence officer spent several years at NSA National Security Agency so he lived\par

(03:34) into my background asked me since he's so I had all the clearances and everything well since you're willing to do this experiment kind of on a lark would you be willing to look at this field for us of course their idea was you know I'm hoping you'll find it's all nonsense but anyway they grew into a 23 year program working for many parts of the government top secret programs and so on and training army intelligence officers and yeah that kind of thing but at some point I wanted to get back to my\par

(04:07) physics so I had accepted a position to be director of these two Advanced Studies in Austin and took it thinking okay well that's the end of my work with the government and that's good there's only a few years later and the government I was looking into how to deal with the UFO problem as you would say mm-hmm we say UAP unidentified aerial phenomena and so I'm gonna look into something weird like that who you gonna call right well so I got involved in that program that's what I'll be\par

(04:46) speaking to your audience today about yeah when we're really looking forward to that and you and I have always had this ongoing conversation for a better part of thirty years almost know about whether there was life somewhere else and how it all worked and we've been involved in a couple interesting little projects where we tried to anticipate what kind of the disclosure or if alien life showed up you know how what would the implications be how it had changed the world and so on it yeah those are some of the most interesting\par

(05:19) sort of projects yeah are involved in now but now you're involved in something that from my point of view is really quite profound for years for decades it was kind of known and presumed that there was some kind of interaction with UFOs you AP's this alien life I mean there's reports thousands if not millions of reports all over the world for years and years that something was going on and systematically over time then different other countries started to declassify their reports and their their history and these kinds of things\par

(06:03) but the United States always was the kind of doled out you know and and so you had all this other stuff going on and the u.s. always said oh well no we don't have anything about any of that and there's a truth the matter is in the deep background there was a continuous study yeah from the 40s onward and but most of it we thought we'd never see the light of day and then suddenly December 2017 New York Times had a front-page story on having dug out the existence of this program and so up till then the\par

(06:40) media sort of treated this was sort of a tinfoil hat crowd thing our Friday afternoon if you didn't have any other news or whatever but now suddenly you have people coming forward like senators and pilots from f-18 jets carriers and people in the intelligence and government communities starting to come forth so that was really sort of a gate gate changer game changer well as I've told you I think it's kind of the watershed then when you and some of your associates and friends who were involved in some of these programs and came\par

(07:18) forward and all stood on the stage I mean really class act serious kind of people and said this is very real and we ought to do something about it and we've got hundreds of case studies and videos and all kinds of things and suddenly it became the defect of the United States has been decided that that that they're going to come out or or begin the process of disclosure I guess that's right recently the number of videos of taken by f-18 pilots have been released and so took a bit a time but finally the\par

(07:57) Navy came out and announced that in fact these are not faith or whatever these are real things and we don't understand what they are and so they admitted for the first time actually first time the government to say yes we have evidence of unidentified aerial phenomena that we simply can't identify and we know it's important and so finally they actually issued orders for pilots f-18 pilots typically off of carriers and so on to report their sightings it turns out sightings men have been going on for\par

(08:30) well over decades but the pilots didn't want to report them because yeah they're gonna think I'm drunker Sobers okay and I'll lose my flight status now the Navy has issued a

requirement that pilots must report any sightings because they've had some encounters where it involve possible safety concerns yeah flying right between a couple of jets that are on a mission and suddenly something comes through and so so it's it's it's a new era with in the government's view and the military's view toward at least\par

(09:09) admitting something's going on yeah what do you think is going on actually I'm not sure we have lots of data lots of it unexplained good data to work with good pilot reports but generally speaking exactly what's going on let's go back a little bit in you know historically there's some kind of iconic events that everybody knows about Roswell and so on where these craft crashed what do you think about that I mean is that all real or not or what well I don't specifically know about Roswell\par

(09:52) because my involvement has been looking at at recent data there may have been some crashes oh my god there are claims and people coming forward with pieces of material right and they came claim came from crashes yeah yeah so we're at least taking it seriously enough to examine material like that that it provided to us see if there's anything we can learn from it yeah do you have any sense for instance from your background weather why are they coming or where these vehicles are coming from yeah I'm being\par

(10:40) as a scientist and it's my role to do this I'm being very careful to not try to speculate so in fact I've got a whole model called the ultra terrestrial model which names every possibility of you know what could this be other domain is it your mother and it's another solar systems is there some secret say corporate America aerospace yeah yeah or some stranded people from elsewhere I mean until we actually have the data I'm really staying away well an actual my colleagues generally are staying away\par

(11:18) from it's a good position as a matter of fact you and I have an old friend Jacques belli who has built a very compelling and profound kind of career around suggesting that these things are not at all the kind of the physical phenomena that we think of them are or at least that's not the origins of what it is and so there's all spectrum of possibilities here in the and obviously there's enough effort to try to convince you that it's all physical or manifest into this dimension or whatever it turns\par

(12:01) out to be but it could be yeah it could be something else entirely that just presents itself as its physical so they're they're more unknowns and many questions to try to answer than there are unknowns well we've had people here in in the speaker series of transition talks to talked about archons and jinn and other dimensional kind of entities who all can manifest themselves and do shape-shifting and come in and so on and I've literally sat here across from somebody as closely as you a friend of\par

(12:39) mine and had him say well yeah I watched this black helicopter that turned into a crow and then turned into an hour no I mean yeah God what in the world how does this all work yeah you mentioned John Cole a he's first why's this wonderful book called wonders in the sky where he traced really it was a quality approach all the way back to you know thousands of years ago and then on up through the centuries of these kinds of kinds of observations and as part of his presentation he and my colleague Eric Davis put together a seven layer kind of\par

(13:21) model for what could be happening ranging all the way from purely physical through interdimensional things up to spiritual manifestations so it's when when we switch to the concept of unidentified aerial phenomenon that that's really a good label yeah well you're involved now with to the Stars Academy and talk to us a little bit about what you're trying to

do because I guess from in Europe you're probably the most substantial kind of entity or organization that's focused on this area\par

(14:03) and and working in multiple kind of dimensions to try to generate more awareness about it and under my becoming part of founding to the Stars Academy of Arts and Science interesting history many of us that were working in the program that they got revealed by New York Times and other people senators coming out and talking about it nonetheless in the government it's it's a tough row to hoe it's not exactly career enhancing yeah in charge of the UFO issue and so a lot of data that could be shared for example the videos\par

(14:44) that are now all over the internet and on TV were just languishing in Pentagon servers and but they could be Declassified and released and so on and so a number of us that were involved in the program decided you know that there should be an open group of people who know a lot about what's going on and we need to bring what be shared out into the public and get a conversation going and so several of us got together and formed to the stars Academy of Arts and Science interestingly enough the fellow who got\par

(15:28) it started was Tom DeLonge of blink-182 a rock star yeah but it turned out that in the background he's always been interested in UFOs and ESP and that kind of thing and he had a lot of good connections into people and aerospace corporations in the government and said you know there should be an organization that the degree we can be discussing this in the open seriously you know we should do that so he decided to form to the stars and so some of the people we have associated with with our group are for example Lou Elizondo who in fact\par

(16:04) Rand the program in the Pentagon and left to come in our he is part of to the stars we have Kristen Ellen who was a former Undersecretary of defense for intelligence and so he's part of our operation Steve justice yes ran black programs with billion dollar budgets for Lockheed Martin skunk works he's part of our new Jim simav an who I knew four years from cia's actually a true James Bond kind of guy worked in the Director of Operations and so he's joined our group and then we pulled together some scientists to how to work\par

(16:51) with and so on and so our activities have ranged all over the place from behind the scenes we do end up talking to congressional committees and Senators and so on i briefed congressional committees twice on yeah on the program and then in the science area and aerospace area we're trying to raise funds to do some some really forward-looking look into the best of what we know scientifically to try to explain how such craft if they're physical could operate mm-hmm and and then the general science group that says\par

(17:38) you know there are a lot of taboo subjects you AP's UFO maybe SETI all that psychokinesis whatever these should not be throwing babies out with bathwater we should we should take a good look at them and so and we're forming good relationships with corporate entities with government entities to do serious kind of thing and T TSA for example last season had a series of episodes on the History Channel called unidentified and it wasn't your usual UFO Hunters or something like that instead that was primarily Lou Elizondo\par

(18:26) actually interviewing the f-18 pilots interviewing the radar operator involved with tracking all this stuff and so actually getting facts out instead of fiction yeah and so that's that that edge an educational aspect we think is important so it's kind of like educational and entertainment and research and you kind of evolved across the whole across the board yeah and again there are many people in the what in the UFO space but that there's a substance and there's a kind of a critical mass about what\par

(19:10) you've let you go brought together that it is really quite encouraging and appealing I've suggested to you that I believe that a decade from now this whole subject matter will have been opened up so much and will have turned into something quite different than what it is right now and potentially even ongoing conversations with alien life or on extraterrestrial life or whatever and the world will be so different then you'll be able to point back and say to folks like you and your your associates\par

(19:48) at ETS a that was the watershed that was when the window opened right and that began to legitimate and one of the things that was going to emerge from this is that there are other countries of course who also have their sighting their archives and at least claim to have some pieces of craft and that kind of thing but they learned early on that sharing it with the US government was not such a great idea because it disappears into a black hole and yeah I never learn anything so once we set up to the Stars Academy we've gone back and\par

(20:27) made connections with these leaders in foreign countries we've talked to generals from Brazil and whatever and so we've said you know look this is a public benefit corporation we're going to share data that we Payne so if you come up with stuff that you think we should be looking at whether the videos or interviews with your pilot's or pieces of materials that seem exotic whatever collaborate with us yes and we'll see this sees the light of day and so we have many conversations going on with people in other countries\par

(21:03) and so that's going to be a big game changer movement it's a public benefit corporation by the way public benefit corporation it's sort of kind of lies halfway between just money raising kind of thing like crowdfunding or an IP corporation or whatever you know it's kind of in the middle it's it's a new category where people can buy shares they're not yet to be traded right on in in the market but it's an SEC corporation eventually if they if we have an IP they'll be able to convert\par

(21:46) their shares and trade them on the market but meanwhile it's a big piece of the public benefit corporation that whatever you're doing you have to show that you're benefiting the public independent of sharing shares with individual so that's why providing information with these TV interviews and so on is as part of that you know as would be natural I guess there's a lot of criticism or people that are sniping about TTS a-about oh you guys are all still the front for the CIA and in in things like that and and obviously you\par

(22:27) all have relationships continuing the relationships with the government or you can't forget what you knew and the and the people that you knew but the but there's something a lot kind of bigger here and by that I mean that the government and and potentially particularly the people of your associates come out of the defense in the intelligence community and they're already entered toward toward threats I mean that is the business that's the business it's a mindset and so I've listened to any of a\par

(23:07) number of interviews where people were all critical of Lou Elizondo who or who else a bit saying that all they want to do is look at threats entered well that's their business that's where they came from I mean I've been in that business in the past and so I understand about it but on the other hand there's the whole business of this emergence in the of a new era in terms of the evolution of humanity that is the that's I'm particularly interested in it can you talk at all about that and have you\par

(23:44) thought much about that kind of aspect of where the species is going and how that's opening up to new ideas and a larger sense of reality I think I can let me start with the the concern that the critics have said that were just some front for the CIA or whatever although

many of us come out of intelligence and defense came out and so on believe me we are not a front for them they would just assume that we went away because if anything the fact that there's so much more discussion and conversation and in the public media at\par

(24:26) this that makes problems for them because routing and for a request and so on so so no no we're we're a group of people who have sort of our thinking as you say have been concerned about threat in the past that that's just the way it is but we think that there's a bigger issue here and bigger issue here involved and you know if it should eventually lead to let's say contact with aliens or multi-dimensional creatures or you know who knows what I mean obviously that's gonna make a big difference and so from my own background\par

(25:03) starting out as a really straight arrow physicist and then getting drawn into the remote viewing program the CIA and DIA and then finding out oh my gosh there are people who just sitting in their armchairs at home can with a little bit of training a little bit of instruction really see events elsewhere and so on so that opens up a whole new window that yeah there's a lot going already you know what you ordinarily think it is and then finally getting into the UFO area and seeing the complexities there and it's unbelievably\par

(25:38) complex so the main take-home message is our usual sort of ordinary view of reality is really really a small element and I mean there are all kinds of things I mean like healing healers and that yeah yeah as also fellow the Fetzer Institute did we look at some shaman healing in China and that kind of theme and there's some amazing things going on so so I think that each of these are all pushes and new directions to say the human being is much more right and but ordinarily our educational system tells us it is and so so they've always been\par

(26:25) in these quote fringe groups that pursue these elements but doesn't become part of the mainstream but I think now that we have many elements coming forth with better and better documentation I might say for example in the UFO area or the UAP area we now have military platforms that are so technically exquisite you can no longer say well maybe it was just the flare oh yeah I know you've got great detailed data and in the alternative medicine area we now have excellent investigations DNA analysis and you name it so so they're areas like\par

(27:07) that are showing new new outcomes and of course in the remote remote viewing era that's so-called area I mean that that's just a whole new element of finding out that sure hoe talent within the human being that's I mean we found in the program that we did that you know it's a bell curve like everywhere everything else you got virtuosos that went into the scale tone deaf people at the other but most anybody in the middle can learn to play an instrument play a tune well it turns out the same thing with it ordinarily\par

(27:43) gets labeled paranormal phenomena that it's a bell curve distribution some countries like India take it for granted yeah countries and the Western culture basically don't and so that's coming to the fore so all these things are beginning to knit together and beginning to reveal much expanded view of human life and even gets to the point where for example in remote viewing we did some challenges about Investors are so great why don't they make money at the stock market or Las Vegas or whatever\par

(28:24) and so we did some experiments where we use that process to do silver futures right 30 days in the market we made two hundred sixty thousand dollars right and so the fact that you in principle could even see into the future and have actual documented proof with great statistics and money in your pocket right you begin to realize well there's a whole aspect that

people are not absolutely tied to the present there's some element okay it turns out that fortunately at the same time our expansion of ideas and quantum\par
 (28:59) physics with quantum entanglement and nonlocality and all these kinds of things that physicists are very busy gathering really good data on but they haven't made it into the mainstream thinking as to who we are yet and what we can do but when all of that gets integrated you know we're gonna have a whole new picture yeah well what you've described quite delightfully is this convergence from multiple kind of dimensions that is reconfiguring the kind of the essential nature of who human beings are the\par
 (29:33) understanding of who we are and moving us from one ERA to another one and in that process all the old ideas kind of implode or collapse and a whole bunch of new ones come up and what you and your associates at TTS a are doing is an integral part of that an important part of that and we're really pleased to have you here today and looking forward to what you have to say well I'm looking forward to the presenting my data yes we appreciate your being with us thanks Helen well thanks for the invitation l\par
 (30:05) appreciate you and thank you for being with us we try to do this on a regular basis we'll be back about once a month and we've got Joanie Petry coming next month Joanie patria is a world-class astrologer quite a force on the internet and she's going to come and talk about long-term what the astrological kind of indicators are for the changes that are coming in the next five to seven years and so that'll be interesting and we hope that you'll come you can find out complete information on our program at\par
 (30:43) transition talks dot org transition talks org and we're located here in Berkeley Springs West Virginia just 100 miles from Washington and Baltimore and it's a wonderful little resort town where you can come and spend a weekend and get provoked intellectually as well as getting massaged and all kinds of good things for your for your mind and your spirit in your body and we hope that you'll come and be with us and so thanks again I'm John Peterson from the Arlington Institute and we thank you for\par
 (31:18) coming and beaten with us in post great [Music]\par
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 The Physics of UFOs: Eric Weinstein + Hal Puthoff - YouTube\par
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 (00:00) were there actually updates\~ in physics maybe mid-century\~\~ that were not disclosed to the public well i\~ mean it quieted down because nobody ever got\~\~ anywhere or it quieted it down because\~ it did get somewhere and it went black\~\~ ladies and gentlemen it's finally here the much\~ anticipated conversation with eric weinstein and\~\~ hal put off the world's most brilliant physics\~ mind of our time is the son of the country's most\~\~ prominent and important anti-gravity researcher of\~ the 1950s i don't know what any of this is hal is\~\~\par
 (00:34) an electrical engineer and laser physicist former\~ nsa and cia hal was a senior advisor to atip the\~\~ official government ufo investigation program that\~ ran from 2007 to 2012 out of bigelow aerospace he\~\~ also founded and ran the cia's psychic spy program\~ called stargate out of stanford research institute\~\~ in the 70s does our government have a protocol to\~ wield stigma as a tool for keeping its programs\~\~ secret certainly there are

parts of the government\~ who consider that to be their job many of you are\~\~\par
 (01:09) already familiar with my colleague eric weinstein\~ he's a mathematician who's dared
 to construct a\~\~ unified theory of physics called geometric unity\~ he's also a prominent yet
 rebellious cultural\~\~ commentator who founded the intellectual dark\~ web i still carry the
 sense of i cannot believe\~\~ i am sitting here discussing visitations from\~ some intelligent
 life that we don't understand this interview is neither for the queasy\~ nor the faint of mind
 there are more videos\~\~ some are better how much better as good as you\~ could probably
 want for many of your comments i\~\~\par

(01:41) haven't cut much from this interview i left\~ it pretty raw long form and unedited
 it's\~\~ a deep technical dive into the physics of ufos\~ along with the implications of their
 prominence\~\~ in the modern zeitgeist that is that we are\~ either being subjected to the
 most interesting\~\~ effective and weird government psyop\~ of all time or our top scientists
 are\~\~ missing something fundamental about the nature\~ of reality and finally hal gets
 about as candid\~\~ as he's ever been about the government's psychic\~ spy program
 stargate while eric who's a little\~\~\par

(02:11) more skeptical of parapsychology tries not to\~ throw up we ran 70 30 instead of 50 50.
 sorry\~\~ but if you want to do it feel free to do it i've\~ told you how to do it so you can just go
 do it\~\~ okay you don't have a lot of room to move you\~ either have to postulate new physics
 or you have\~\~ to say this isn't material everything here is\~ bold my conclusion is that there
 is something\~\~ there i don't like losing to jesse it's horrible\~ losing him on ufos i don't want
 to lose it to him\~\~\par

(02:40) a second time but something is wildly off so with\~ that out of the way hit subscribe
 and get ready to\~\~ unlearn everything you thought you knew about the\~ material world
 with eric weinstein and hal put off\~\~ different parts have different\~ activities but you know
 that don't you the intelligence committee has ordered the\~ director of national intelligence
 and the\~\~ secretary of defense to deliver a report on\~ the mysterious sightings of
 unidentified aerial\~\~ phenomena uap more commonly known as ufos the\~ reason i found
 the report fascinating was because\~\~\par

(03:37) it reeked of conflict i could clearly detect a\~ voice an authorial voice that wanted to
 disclose\~\~ more and one that said over my dead body and\~ the over my dead body people
 seem to be stronger\~\~ but losing ground the first branch of the decision\~ tree is is it stuff
 that is unintentionally\~\~ in the air versus stuff that is intentionally in\~ the air the
 unintentional stuff was broken into\~\~ two categories that was clutter and atmospheric\~
 effects the stuff that is intentionally in the\~\~ air was broken into the next branch which
 was\~ us not us not us was broken into two things\~\~\par

(04:17) known others and unknown others and that other\~ is intentionally in the air not us not
 anyone we\~\~ know not necessarily aliens could be coming out\~ of the ocean could be time
 travel i mean who the\~\~ hell knows but anything in that other category is\~ astonishing i
 think one very important thing that\~\~ most people in government who study this seem\~ to
 sort of have a consensus on that the public\~\~ might not realize is the idea that there is a\~
 separation between substrate and signature when\~\~ it comes to ufos and there might be a
 difference\~ in terms of the way somebody perceives it and some\~\~\par

(04:59) underlying sort of proto architecture and so if\~ we have been seeing these things for
 thousands\~\~ of years we've been seeing them in different\~ forms different forms and
 maybe different sources\~\~ these days since our technology platforms are\~ so high to

generate effects they could mimic\~\~ and our detection platforms are so well\~ advanced so we could see a lot more\~\~ then it really is a zoo of options and\~ possibilities and so for example for the tic\~\~ tac videos that are so well known lou elizondo\~ was behind releasing those videos i remember\~\~\par

(05:41) seeing them in the pentagon before they were\~ released but there are more videos some are better\~\~ how much better well as good as you\~ could probably want if you showed me\~\~ pieces of a craft and you guaranteed me somehow\~ that it came from outside the solar system my\~\~ first thought wouldn't be technology it would be\~ physics because everything is so far away from us\~\~ other than our solar system that i would be\~ wondering well how did it get here when you look\~\~ at the civil war in the united\~ states it took place in the 1860s\~\~\par

(06:23) within less than a hundred years we were dropping\~ fusion devices from jet aircraft less than a\~\~ hundred years less than a single lifetime it\~ means that we almost had a nuclear civil war\~\~ and it was a very near miss now what separated the\~ 1860s which looked like antiquity to many of us\~\~ from 1952 when we have the first fusion weapon\~ explode it was changes in our understanding of\~\~ the physical world that means anytime you have a\~ profound physical insight post i don't know 1940s\~\~ you have to ask yourself what pandora's box\~ with a new physical insight potentially open and\~\~\par

(07:20) i don't know why we're not more worried\~ about this i think because we've been\~\~ failing at physics for 50 years we've gotten\~ out of the habit of thinking physics is really\~\~ dangerous and you have to track every\~ single important physicist because any\~\~ change in our physical understanding\~ of the universe can unlock holy hell\~\~ were there actually updates in physics maybe\~ mid-century that were not disclosed to the public another puzzle we would love to have cleared\~ up is an understanding of the role of aerospace\~\~\par

(07:56) companies as holders of potentially basic\~ scientific knowledge not shared with the\~\~ academic world is it possible it seems very\~ wrong to me may be wrong but it's um true\~\~ it is true you believe it's true yeah i know\~ it's true you know that there's physics knowledge\~\~ held by aerospace companies that is not\~ there certainly is materials knowledge\~\~ materials well okay materials which\~ involves topological physics or whatever\~\~ okay but fundamental physics as opposed to\~ you know condensed matter or right certainly\~\~\par

(08:32) aerospace corporations have knowledge in the\~ uap area that specifically are sequestered by\~\~ against foia because of proprietary appreciables\~ which the whole thing was set up to be that way\~\~ on purpose right but the idea that there would\~ be fundamental physical knowledge that would be\~\~ housed in an aerospace company and not shared with\~ the physics community there is no evidence of that\~\~ no evidence for it i'm not that i know of and i\~ wouldn't that doesn't mean it's not the case but\~\~\par

(09:06) that would be this crazy egregious it would\~ change our entire concept of who we are if\~\~ somebody kept fundamental physics secret in\~ the years since we became capable of exploding\~\~ fusion devices i would grab a pitchfork and a\~ tiki torch and i would march on the national\~\~ science foundation right right i don't\~ i still can't believe that that's true\~\~ it would only be if it were the case that\~ in fact we have mastered anti-gravity\~\~ and they're being built by aerospace corporations\~ then new physics would have to be involved is\~\~\par

(09:44) what is called the golden age of general\~ relativity tied to these topics that is\~\~

there was this bizarre surge of activity in\~ general relativity between you know i would say\~\~ the time of einstein in the 50s or something like\~ that there wasn't a ton of development in gr and\~\~ then suddenly there was this explosion there was\~ a well this explosion uh there there's a famous uh\~\~ series came out in miami herald and other\~ newspapers in probably the 50s the author was\~\~ talbert and he did a series where he found\~ out that a number of aerospace engineering\~\~\par

(10:25) companies were suddenly interested in anti-gravity\~ and that people like dewitt on up and down\~\~ really top level physicists were suddenly getting\~ grants to look at the idea of antigravity for\~\~ example the gravity essay came along the gravity\~ research foundation foundation right and so\~\~ it looked like it's going to be a big explosion\~ but anyway then it all sort of quieted down and\~\~ i could take two implications of that and that is\~ it quieted down because nobody ever got anywhere\~\~ or quieted it down because it did\~ get somewhere and it went black\~\~\par

(11:06) my understanding is that there were really\~ twin loci of activity one of which surrounds a\~\~ gravity research foundation in new boston new\~ hampshire and i guess that was the work of babson\~\~ and the story is sort of not really very plausible\~ that his sister had drowned in a pond or something\~\~ to that effect and so he had gravity as his sworn\~ enemy um you know this story no i had not heard\~\~ this oh yeah so babson contacted lewis whitten who\~ was coming out of johns hopkins and then oddly a\~\~ similarly named individual named bainson with\~ some sort of tobacco or air conditioning fortune\~\~\par

(11:52) reaches out to bryce dewitt and asks whether\~ he will found an institute at the university\~\~ of north carolina chapel hill right for the study\~ of physical fields and particularly focusing on\~\~ gravity particularly focused on gravity somehow\~ dewitt has the courage to answer this essay\~\~ contest in the other silo and destigmatizes it\~ so there was money to be had but nobody wanted\~\~ to touch it because of fear of ridicule from\~ their colleagues and then there's a famous\~\~ gravity conference at the university of north\~ carolina chapel hill that sort of kicks a lot\~\~\par

(12:28) of this off it's a tremendous flurry\~ of activity at a time when anti-gravity\~\~ was trying to break into respectability at a\~ minimum we know that the glenn martin company\~\~ where martin was an early pioneer i think\~ from the time of the wright brothers\~\~ that the glenn martin company becomes martin\~ marietta later becomes lockheed martin so\~\~ that word martin is coming all the way through was\~ employing i believe lewis whitton edward whitton's\~\~ father to do anti-gravity research somehow\~ tied up with wright-patterson air force base\~\~\par

(13:05) in ohio and the johns hopkins university\~ in baltimore maryland so there's something\~\~ about aerospace in the 1950s and sort of post\~ manhattan project era that's pretty potent\~\~ and we're confused by this why was solomon left\~ schetz the great topologist recruited to be\~\~ involved with louis whitten and to have an entire\~ non-linear group working on mathematics that then\~\~ gets moved to brown university when i believe that\~ these programs are sunsetted so they get spun off\~\~ back into the academic ecosystem i don't know\~ what any of this is so you have top physicists\~\~\par

(13:47) working on crazy stuff and physicists don't\~ know the story yeah right yeah it's like i knew\~\~ it because it was weird it stood out the lewis\~ whitten edward whitton story has never been fully\~\~ made sense the world's most brilliant physics\~ mind of our time is the son of the country's\~\~ most prominent and important anti-gravity\~ researcher of the 1950s

do you think that string theory which edwin worked on is intentionally a bridge to nowhere i have privately said to you that string theory was a very odd development because it both allowed physics to proceed as

(14:33) if it was doing something new while breaking no new ground in the physical world in which we live i don't really know if you were trying to stagnate the field string theory is pretty brilliant if there was knowledge that allowed you to traverse the cosmos in other words if you could render einstein's theory effective the way einstein rendered newton's theory non-fundamental but an effective theory derived from einstein's theory in a limit to not share that knowledge with the physics community would be seen as gross

(15:14) academic and intellectual malpractice yeah if somebody had that level of knowledge i mean the best that uh you know we could do in the in the a-tip program was say okay let's accept einstein's gr as being the theory okay even though there are all kinds of arguments right subscribe by gr you mean general relativity general relativity and for this subject area for the uap subject area as far as as we've gone is to say okay suppose i treat general relativity einstein's equations for general relativity the way i would treat maxwell's equations for

(15:52) electromagnetism if we could manipulate variables and einstein's equations the way we manipulate variables in maxwell's equations you would see certain kinds of things which tend to match claimed observations of uap phenomena somewhere there's a missing key for how you can do manipulation of those variables in einstein's equations without having to have a black hole in your pocket are you talking about the idea that you want to promote constance to field content to be actual physical fields that can

(16:31) vibrate and live and move yes i would say so but then you have the quantum mechanical consequences when you promote something to field content you break it you bought it you've got a lot of uh you've got fluctuations and uncertainty principles and it contributes to all sorts of uh processes and sometimes you get you know explosions of terms of series things stop converging and things can get quite bad is that something that you feel you've handled well at a certain level how can we describe in layman's terms the idea of promoting a constant like the gravitational

(17:11) constant into a field variable so a very kind of helpful actual analogy used for me who's a i'm a total idiot when it comes to this stuff is a circle and pi being a constant you know the area of a circle is πr^2 uh and so if the circle had bumps in it or if it was topologically different in some way pi wouldn't be pi pi would sort of be more variable in such circumstances something that you thought was a constant turns out to be variable when considered in a larger space of possibilities likewise if i ask what is the temperature in this

(17:49) room i'm feeling a little bit chilly and you might say oh i think the temperature is 64 but then we might find out that in fact the room varies between 63 degrees and the 69 degrees in a different corner of the room so something that you thought was a number like we just we had inflation estimates of 6.8 and then 7

(18:17) 0 percent and i was very angry about that because my claim was that you should report inflation on various maps the way you show the temperatures in the country on a temperature map with gradients and isotherms and what have you if you do that to

numbers like $\hbar$ for example the gravitational constant that $\hbar$ constant could be the value of a function $\hbar(x)$ and if it was the value of a function and $\hbar$ then that function became quantum mechanical $\hbar(x)$ you would have to treat it quantum mechanically $\hbar(x)$ it's not cheap to replace a number by a function $\hbar(x)$ or a field we have an entire planet pulling us $\hbar(x)$ towards these couches and yet when the interview $\hbar(x)$ $\hbar(x)$ $\hbar(x)$

(18:58) is done we will get up from these couches\~ defeating an entire planet the weakness of gravity\~\~ is one of the great mysteries of\~ our lives it's inconceivably weak\~\~ true enough yeah and if we accept\~ gravit einstein's general relativity as\~\~ again i'm not quite sure how much of it you\~ you take issue with it would seem that we are\~\~ either prisoners here or that we have to lean\~ so heavily on time dilation or we would have to amass levels of energy i mean your point is\~ yeah we can't we can't do it from what we know\~\~par

(19:42) for sure okay so then the idea is~ we'd have to have something wrong~ in gr yeah something is at least~ missing okay maybe jar is okay~ as it goes but we're missing something~ that would have the effect of~ manipulating the variables in there that~ we can't do with any reasonable engineering~ approach well so far as i know there's only~ one analog that even smells vaguely like~ this in electromagnetism aaronoff and bohm~ argued that if you pass an electron beam~ around a solenoid and pass the current through~ it if it was perfectly insulated you would have~par

(20:24) no e and b fields out that is electric electric and magnetic fields outside of the solenoid but yet you'd get a phase shift in the electron beam is it circled this is what's known as a holonomia effect you guys talked about this incredible experiment called the bohm iron off effect can you show me the actual experiment imagine you have some sort of an electron gun and you have a beam of electrons and they hit a first mirror so that they bounce off of that mirror you have a next mirror in the form of a diamond and i'm looking down on my table top experiment

(21:02) and i've got some sort of a detector over here~ if i have a wire here that's heavily heavily~ insulated i can imagine running a current~ through this wire the solenoid in the center~ and the e and b fields would be dead~ equal to zero because of the insulator~ however when i pass current through~ this wire mysteriously the detector~ picks up different patterns of self-interference~ of the phase of the electron function~ in other words this setup can detect whether~ there's current passing through the wire despite~

(21:40) near perfect insulation that was what was so frightening in the late 50s is that we were discovering that it wasn't the electromagnetic fields at all that were really the important actor in the electromagnetic story we thought we understood electromagnetism from the time of maxwell but clearly the electromagnetic four potential was really the main actor do we understand the nature of the electromagnetic for potential or is it just this sort of geometrically i think we have a very good handle okay and so you mentioned par

(22:12) the higgs field looking like something like $\sim$ analogous to like a wine bottle what would the $\sim$ electromagnetic four potential geometrically look $\sim$ like well it looks like a version of the escher $\sim$ staircase or the penrose stairs in effect those $\sim$ stairs would be something like we would call them $\sim$ horizontal subspaces the weird feature of going $\sim$ around a circuit and always going up the stairs $\sim$ and yet never climbing in height that would $\sim$ be what we would call a holonomia effect due $\sim$ to curvature paradox and you can go way $\sim$

beyond that so there are all kinds of\~\~\par

(22:57) toroidal geometries for example where you have\~ no em fields whatsoever but you have strong\~\~ vector scalar fields and since you have\~ no lorentz force in the absence of $\mathbf{e}$ and $\mathbf{b}$ \~\~ then how can you detect them well you detect\~ them by the by any kind of quantum detector they\~\~ can detect phase shifts can detect the vector\~ scalar potential even in the absence of fields\~\~ so there's a whole engineering approach\~ concerning which i have two patents by the way\~\~ and have started a new company that involves only\~ dealing with vector and scalar potentials when you\~\~\par

(23:42) are trying to come up with this analogy between\~ electromagnetism and general relativity to\~\~ explain some of these effects are you dealing\~ only with the levi-civita connection of the\~\~ metric as einstein did or are you considering i'm\~ basically dealing with the metric coefficients\~\~ by postulating a dielectric vacuum whose\~ dielectric constant values for say ϵ \~\~ μ the permeability and permittivity of the vacuum\~ can be manipulated and once you manipulate those\~\~ you're manipulating c which is one over square\~ root scrutiny ϵ and so once you begin\~\~\par

(24:20) to manipulate c then you can change effects\~ associated with all of the and so you could\~\~ with this with this polarizable vacuum\~ approach which i published in physics journal\~\~ you can get all of the quote tests\~ of general relativity and so on so\~\~ so the fact that you might be\~ able to pursue that further\~\~ by taking into account the fact that underlying\~ electromagnetism is vacuum fluctuations\~\~ which have the effect of controlling\~ the value for ϵ and μ so then\~\~ you say okay well if i want to go over\~ to general relativity maybe i can control\~\~\par

(25:04) the underlying values for the metric coefficients\~ so there are various mathematical approaches to\~\~ kind of pushing einstein's equations to be not\~ quite einsteinian so we're not talking about this\~\~ this is what has been confusing to me there's\~ a question of accepting the einsteinian prison\~\~ or trying to do to einstein what einstein did to\~ newton and then say there's a more fundamental\~\~ theory and what you're really saying is that\~ you're trying to come up with a more fundamental\~\~\par

(25:36) theory than general relativity in which many of\~ the things that are hard coded are in fact vacuum\~\~ expectation values that are only discernible\~ within the theory something like that yeah there are consequences after impact you have a\~ theory that is a greater it's more expansive than\~\~ einstein einstein would be you can locate einstein\~ with you can locate einstein within it and so\~\~ does any of the stuff in geometric unity your\~ theory dovetail with what you're seeing in terms\~\~ of observables with ufos and uaps there are two\~ strong versions of geometric unity in one case\~\~\par

(26:31) you put an extra six dimensions as time dimensions\~ into into the mix and so one plus six is seven\~\~ and then you've got four extra spatial dimensions\~ four plus the three spatial dimensions we already\~\~ know is seven so you'd have what we would\~ call a split signature metric seven and\~\~ seven seven times seven space the other way of\~ of effectively gluing these extra dimensions is\~\~ in is to flip them so you'd have four extra time\~ dimensions that would be five time dimensions in\~\~ total versus nine spatial with three that we\~ know plus six new ones in either case though\~\~\par

(27:10) you're talking about multiple temporal dimensions\~ and even physicists rarely talk about multiple\~\~ temporal dimensions because it completely\~ breaks our paradigm of what we might call\~\~ hamiltonian dynamics the idea that you you can\~ take any situation in

space and then propagate it through time to get the future when you have more than one time dimension you have more than one future you have no arrow of time you have a whirlpool of time for the first additional time dimension then you have a right hand rule of time and so this arrow of time becomes something

(27:48) you would call a time orientation and then the weird horrible thing about that if i may use the board yeah go for it when you have more than one temporal dimension you now have a new possibility that you've never considered which is you could go back into this extra extra time dimension and find yourself at an earlier event without ever having to retrace time steps you wouldn't have to run time backwards we don't really know how to think about these things very well they lead to something which is called ultra hyperbolic equations and we don't have a ton

(28:25) of focus or skill around these sorts of problems one of my biggest concerns is that if geometric unity turns out to be true we don't know what it means to be able to hack extra temporal dimensions that's a big concern i mean it would probably explain some of this uh at least observably faster than speeding travel see that's the thing there is no faster than light travel and we have to train people away from saying you think we have faster than light travel there may be something that would appear to be faster which temporal dimension hacking which sort of makes it

(29:08) because a lot of these uaps seem to sort of mater materialize and dematerialize it will look there's certainly scope for pattern matching if you have things like dark chemistry dark light if you have a multiple spatial and temporal dimensions beyond what we know the concern though is we don't know whether they're accessible the interest and the fear has to do with the idea that maybe somebody else knows the answer to this and they aren't human so that one's called the time warp i can't believe you never saw rocky wore a picture

(29:48) no i know it's a cult classic have you seen it speaking of cults how weren't you in scientology oh year years years back i checked into it because at that time we were doing you know setting up a remote viewing program we were checking into everything silver mind control scientology whatever whatever i thought some of the techniques were definitely of value but i disconnected from them in their mid 70s or whatever i think what we need to do is we need to talk about pseudoscience and stigma and its weaponization and its use so the first

(30:23) thing i want to ask you about is does our government have a protocol to wield stigma as a tool for keeping its programs secret is the is the government so certainly there are parts of the government who consider that to be their job is there language for the manipulation of stigma to discourage people from under undertaking scientific investigations that might lead them into an area of security concern there is a language in there there are certain operations that sort of have that effect but there are people who are trying to get around

(31:05) you you personally have been the target of a great deal of directed stigma it would seem to me do you have a sense that you've been that your career has been directed by manufactured signals certainly there was manufactured stigma and control we've had people actually shut down a piece of a program on the basis that american taxpayer dollars should not be spent on pursuing demonic technology you know densenian yeah okay i was friendly with dan sheehan and admired his work taking on all

(31:40) these crazy cases against the government\~ not knowing he had any interest in ufo uap\~\~ there was an attempt to discredit him through\~ stigma because of his interest in the iran contra\~\~ matter right with the christic institute and so\~ i think he was fed wrong information probably\~\~ so that he'd swing at a bad pitch and that's why i\~ was very interested at the weaponization of stigma\~\~ and whether or not you were party to\~ any knowledge of how that is carried\~\~ out so as to keep these programs no i've\~ never other than being the effect of them\par

(32:21) you do want to keep things like the loch\~ ness monster and spoon bending away from\~\~ the ufo conversation if you can and there's\~ this tremendous force in this world to say\~\~ well if we're opening our minds to ufos my aunt\~ lived in this house that was haunted for 27 years\~\~ like i don't want to hear this i don't want to\~ listen to the fact that your aunt's house is\~\~ wanted now the thing that goes against what i'm\~ saying is something like cattle mutilation so\~\~ either somebody is an amazing sadistic animal\~ hoaxer or you have to open the uap story to\~\~\par

(33:04) them communicating something by their decision to\~ study cattle or leave cattle as presents for us or\~\~ who knows what well that brings up this really\~ weird place called skinwalker ranch in in utah\~\~ i think it's the near the utah basin and you\~ enter you went to basin and so there's a myth\~\~ that involves the ute tribe fighting the\~ navajos and i believe the navajo is sick\~\~ these skin walkers these sorts of youths were\~ collaborating with the united states government\~\~ the navajo weren't so happy and so they cursed\~ this particular spot of land with skin waters\~\~\par

(33:38) and the family that used to live on the land would\~ see tons of cattle mutilations they'd experience\~\~ all sorts of paranormal things bigelow buys\~ it bigelow is obviously very interested in the\~\~ you know uap phenomena and now it seems like it's\~ this place where they do all sorts of experiments\~\~ they have anomalous electromagnetic effects on the\~ grounds so what do you what do you make of this\~\~ something is wildly off this stuff is interesting\~ enough that it should be attracting scientists\~\~\par

(34:10) and the scientists who are attracted to this\~ should be debunking the living crap out of this\~\~ if it's some dime store bs but the absence of\~ scientists is itself puzzling yeah partially\~\~ due to stigma partially due to the fact that\~ nobody wants to get sucked into some low rent\~\~ uh horror movie where two kids see a creature\~ in the black lagoon and they try to tell the\~\~ townspeople and no one believes that yeah the\~ question is is the stigma manufactured or is\~\~ the stigma sigma because all this stuff is [__\~] we're pretty clear that's a lot of stigma is\~\~\par

(34:47) manufactured so the government talks about an\~ internal documents image cheapening and what's\~\~ the context in which image cheapening is has been\~ used or famously against a woman who was a leading\~\~ actress in hollywood named jean seberg and the\~ fbi is how we learned about image cheapening\~\~ planted a story with a woman named joyce haber in\~ the los angeles times that the baby that she was\~\~ carrying was in fact not her french husbands but\~ was in fact the baby of a black panther they drove\~\~ her to suicide they drove her to miscarriage first\~ and then 10 years of suicide attempts but the\~\~\par

(35:26) key point is our government does not necessarily\~ blink trying to turn your reputation into absolute\~\~ garbage if you get close to its treasured sources\~ and methods yeah and that is not compatible\~\~ with saying that we have something that we don't\~ understand

menacing our military its airspace and\~\~ our nuclear sites very strange it's hard because\~ it's clear that there's some element of the psyop\~\~ here and then it's hard to sort of separate there\~ has to be scion there has to be because project\~\~\par

(35:58) blue book yes and the pentagon report do not\~ seem to be particularly compatible in other words\~\~ it appears that either we were lying then that\~ there's nothing to see yeah and we're telling the\~\~ truth now or we're telling the truth then that\~ there's nothing to see and we're lying now that\~\~ ufos are here what i find really interesting about\~ the blue book history is edward j rupelt was sort\~\~ of running blue book he was an air force general\~ and he seemed pretty open-minded to the phenomena\~\~\par

(36:28) being real especially after kind of empirical\~ inquiry and then in 1952 something very bizarre\~\~ happened which is there were a bunch of spottings\~ of ufo spottings around washington dc in july 1952\~\~ and then there's a there's a caltech physicist\~ named h.\par

(36:49) p robertson who forms kind of a panel\~\~ and the conclusion of the panel is basically the\~ government needs to systematically downplay the\~\~ importance of the phenomena and if the public were\~ to know the truth it would touch off mass hysteria\~\~ every single head of blue book from that point\~ forward from 52 to 69 when it ended uh became\~\~ progressively more kind of anti-ufo and so the\~ question is is this you know typical cia leaked\~\~ dock to lead us off the trail and is it [__]\~ or um did was manufactured stigma created between\~\~ 1952 and 1969 actually blue book maybe initially\~ was kind of open too what happened in 1952\~\~\par

(37:34) the dc ufo sightings in in july yeah i was\~ going to say the oh what else the first\~\~ h-bomb h-bomb teller yeah a tele-rule on design\~ yeah so the concern that i have is that in 1952\~\~ we sent off a signal just wait just the way\~ when north korea detonates a nuclear device\~\~ it sends seismic waves through the earth it can't\~ stop sending information outside of the country i think in 1952 we sent a signal to the\~ cosmos which is that we're very very close\~\~ to being in possession of root level knowledge to\~ take a software metaphor we are about to become\~\~\par

(38:18) root which is terrifying if you're a system\~ administrator that you've got a hacker that's\~\~ about to get full control of the system it's\~ like your edge.org question which was uh what\~\~ happens when we discover our own source code does\~ something unprecedented happen there's something\~\~ unprecedented happen when man first aliens well\~ people didn't understand what the question was\~\~ though it was the final edge question and instead\~ of giving an answer he asked us to give a question\~\~\par

(38:44) the concern that i have is that in 1952\~ what if there was someone there to hear\~\~ what we said in the pacific if there was\~ something or someone there to hear us\~\~ they probably heard us as saying we're\~ on the verge of being able to come visit that's terrifying the stargate program which you\~ ran which is a government sort of psychic spy\~\~ program ran from 1972 to 1995 and it ended in\~ 1995 under ed may and you know a lot of people\~\~ after that said that it wasn't all that effective\~ see that's part of the uh the stigmatization well\~\~\par

(39:26) i was just reading skin walkers at the pentagon\~ you know where it talks about atip and and i guess\~\~ yeah awesome these two programs uh and it\~ looks like remote viewing is sort of again\~\~ revived i guess i don't think it ever really died\~ so so the question is yeah is that is that um\~\~ creating a stigma because you're bundling in\~ parapsychology um which might be pseudoscience\~\~ with the ufo stuff or or is it is there some\~ connection

between those two things because there seems like a lot of overlap in terms of the people interested in the parapsychology stuff

(40:00) and the people interested in the ufo stuff as jacquefully and eric davis put out a very nice paper of six levels of uap phenomena which range all the way from nuts and bolts at the bottom to spiritual or metaphysical aspects at the top and everything kind of in between uh can you break that down for us so what are the six levels and how how are the nuts and bolts at all tethered to spiritual phenomena well actually the nuts and bolts things but then some of the consequences of the nuts and bolts things are changes in what we call ordinary reality

(40:39) which people who are the effect of might claim that that's some kind of paranormal thing because that's the only word they can come up with to describe it so there are paranormal things and then it's sort of a gradation from there in the things that are purely non-physical but supposedly quote possibly psychokinesis i have to admit i have such a strong visceral negative reaction and it's very interesting because as jesse will tell you jesse was interested in this ufo uap stuff and i couldn't be in the room with it i just i hated

(41:20) the topic it always felt like garbage to me and i found out that i was apparently wrong about that the federal government is certainly tracking this it doesn't make any sense to me still that we have all these sensors and we don't have great video all over the place i don't know how these uaps you know could possibly evade all of the cameras that we have outside of the government and we have no conclusive proof but assume okay i was wrong about that at some level because we are

(41:50) now discussing this in the open so i'm willing to start to revise everything that is protected by my desire to throw up right there's this shows the the stigma programs it was on me right i'm being honest and open i still carry the sense of i cannot believe i'm sitting here discussing visitations from some intelligent life that we don't understand potentially uh but okay so you know a scientist should be able to consider these things and i'm not going to be the prisoner of the stigma but i am going to ask you guys av lobe at harvard setting up his

(42:29) thing to pursue it but but this is a really important question if if you could set up a ton of sensors how would we know what we're seeing at high sample size if right now we don't know what we're seeing at low sample size and i think one question i'd have for you where i'd challenge you is is there some physics that we will figure out in the future around certain ability around certain people's ability to see these things and that sounds really pseudoscientine crazy

(43:00) but most of the people involved in the program seem to think that there's something around that and as far as as far as uh you know why aren't we getting really clear pictures i mean i'm not i wouldn't say that that's necessarily the case that we're not getting you may be getting really clear but you're an average guy with an iphone let's say the craft is there but it's manipulating the space-time metric so you're just going to get fuzzy outlines because

(43:31) light is being bent in various ways around the craft and so on so you're going to get a lousy picture it doesn't mean because it isn't really there i would imagine i would be drowning in high quality video and it's it's a great puzzle to me that i'm sitting here discussing this i can't even solve this puzzle and then the related puzzle having to do

with remote\~\~ viewing or anything like that is if i take\~ a materialist perspective that the world is\~\~ created of material whose laws can be\~ understood and you put me in and you or say\~\~\par

(44:04) in two lead-lined rooms and we try to make sure\~ that there's no way that any of the known forces\~\~ or matter fields can communicate you know my mind\~ goes to you know are we claiming that neutrinos\~\~ are carrying the information are we claiming\~ that there's a new force are we claiming that um\~\~ the world isn't material or the entanglement\~ is more see this is spread out and and well\~\~ entanglement would be one of those things like\~ beauman and casimir which has the appearance\~\~ of being spooky right in other words if you had\~ a culture in which magicians possessed scientific\~\~\par

(44:47) knowledge they would have an edge over everyone\~ else because they could explain they could\~\~ predict the bone marrow and off effect see i can\~ i can manipulate this electron beam without even\~\~ having any possibility of touching it right so\~ this gets to the issue of advanced science being\~\~ indistinguishable from magic and then the idea\~ that this is in some sense held by a particular\~\~ silos over other silos i mean as a scientist i\~ either want to laugh or my blood boils well i mean that's kind of a justifiable position for\~ example early on in the cia remote viewing\~\~\par

(45:31) program that i set up at sri i was asked to\~ check out claims of a psychic english swan ingo\~\~ had done experiments at city college in new\~ york under professor gertrude schneider she\~\~ had set up thermistors and from across the room he\~ could make the temperatures go up and down and so\~\~ i took this claimed psychic invite\~ him out to sri to see what he could do we had the cork detector and so it was basically\~ a quantum chip inside a new metal magnetic\~\~ shielding inside of steel dewar for electrical\~ shielding inside of superconducting shielding the\~\~\par

(46:15) requirement being that nothing could affect this\~ thing from the outside so we want to see if you\~\~ can affect it he affected it unequivocally\~ 100 percent you had this slow oscillation\~\~ what he did was he stopped the oscillation now\~ what turned out to be even more quote magical was\~\~ when we asked him you know how do you know what to\~ do and he said well all i did was look inside and\~\~ then he drew out how things were related inside\~ that never been published and it turned out that\~\~ they were accurate and so it was when i wrote\~ all that up and circulated around that's when the\~\~\par

(46:52) cia came knocking at my doorstep and they said oh\~ we've been looking for you and i said you know why\~\~ would i do he said well the russians have been\~ spending millions of dollars at their best\~\~ institutes with their best people for years no\~ scientists in america even believes there's such\~\~ a thing as psychokinesis or esp or whatever and\~ you happen to do this experiment and so you know\~\~ we graduated from there to having remote viewing\~ of super secret facilities and project titles\~\~ hidden in safes that's how the whole program got\~ started it ended up being a 20-year 20 million\~\~\par

(47:28) dollar program i don't know what to make of all of\~ this i don't think any of this to me sounds real\~\~ now that said you could imagine a one-time\~ backwards upgrade saying we happen to know about\~\~ aliens for a long period we've kept it secret we\~ figured out the physics the physics has different\~\~ fields we're actually able to use this we\~ call it psychic phenomena and so we don't\~\~ have to give our secrets away you could\~ imagine a complete reworking of reality\~\~ without that real working of\~ reality i would say this is bs\~\~\par

(48:07) what would what would be your best guess assuming you think because you have levered a lot of your life into parapsychology and you've levered a lot of your life into physics how would you reconcile physics with parapsychology which i realize is a you know a 64 million dollar question but what would be your best guess do you have any theory well we we it can definitely rule out that it's em brain waves because we put some of our remote viewers on submarines and took them to the bottom of the ocean and we got some of our best results in fact the remote

(48:37) viewers in the submarine said boy it's really quiet here you know so yeah i mean if i think about it in terms of telescoping right for every long-range field we now have a telescope so we have optical and radio telescopes for photons we have neutrino telescopes which is actually matter rather than force we know that neutrinos can zip through a planet and not even notice it was there and then we have gravitational telescopes in the form of ligo and the weak force is going to be super short range super weak because it's effectively massive

(49:13) and we have vector scalar forces and em uh sorry when i think about e m i'm thinking you're including vector and scalar potential hell yes nobody nobody okay everybody's moved on to vector i don't even want to call it vector and scalar just potential they're different connections on fiber bundles and then you have this issue of gravitation with ligo right so we can we can pick up super long-range stuff from colliding black holes by now measuring gravity waves gluons aren't

(49:43) going to do much for you quarks aren't going to do much for you these are the fields that really give us information from distant galaxies and then there's the question of are you talking about a material world that we don't yet know or material effects that is part of the material where we do where the somehow we have it for example i mean you have all these but you know the usual issues about it not being useful to communicate information you have this bizarre non-locality

(50:13) of entanglement but you can't use it for ftl for faster than light communication right right so if two two events are space-like separated uh you're not so far as we know there's no means of tricking uh an intention of controlling it right yeah so this is what it happens well i'm i'm struggling with this to be to be honest to say just to put it mildly and i don't like losing to jesse it's horrible losing him on ufos i don't want to lose it to him a second time

(50:49) but i guess what the question is really you don't have a lot of room to move you either have to postulate new physics you have to say that there are new effects like iron off bone that we didn't understand during the physics that we already know but we haven't unpacked them yet or you have to say this isn't material that there's there they're angels and demons and spirits that uh that don't conform to our understanding everything here is bold there's nothing that simply yeah we

(51:19) we saw this effect it was robust so for me i've looked into the stargate stuff and i've talked to you a decent amount my conclusion is that there is something there and yet it feels like there are a lot of near misses as well and it seems very hard to instrumentalize and scale up there was plenty of times when we produced really good data and to be fair there were plenty of times when it failed if you don't understand the causal mechanism then you're going to have repeatability issues and so

(51:45) is there like a part of the brain like so like the penrose thing which is probably

wrong\~\~ but you know this idea that he wrote in the\~ emperor's new mind that the microtubules um\~\~ i guess that was the follow-up of the emperor's\~ new mind with hameroff the microtubule is our\~\~ quantum sensor that collapses the wave function\~ into an eigenstate yeah i have some sympathy for\~\~ going along that direction so you think there's\~ some sort of quantum sensor in the in the brain\~\~ and do you have a top candidate for the specific\~ structure well i can't rule it out i mean they\~\~\par

(52:13) certainly started from a very fundamental thing is\~ and that is if you can get rid of consciousness by\~\~ using an anesthetic then however you're doing\~ it must have something to do with consciousness\~\~ if this effect exists why is it classified and\~ why is the government where is it in the stock\~\~ market well there are remote viewers who use it\~ on the stock market so like the classic the good\~\~ example is that you guys tried to start a hedge\~ fund you know just trading silver futures and\~\~ you made something like 260 k and i think scaling\~ it beyond that seemed to be a big big challenge\~\~\par

(52:48) it was only a challenge because i didn't have the\~ time to do it i mean our particular thing i gotta i mean i want to be polite but i also want\~ to be aggressive my experience with money\~\~ tells me that you can win over any skeptic\~ very quickly if you can just shove millions\~\~ of dollars into their pocket by arbitraging\~ their skepticism okay let me let me tell you\~\~ how to do it and you just go do it it's really\~ easy actually i know some people with capital\~\~ okay just have somebody pick a couple of objects\~ have them label them mark it up mark it down\~\~\par

(53:29) and they're going to show you the object the\~ following day depends on what the market does\~\~ and then you do your best to generate a\~ description then based on that description they\~\~ can go back and the next day on the average you\~ get get your money we ran 70 30 instead of 50 50.\~\~ and so it's two steps forward one step\~ backward two steps four what's that\~\~ that's how we downed in class that's how we\~ got this 260 dollars which is why did you stop\~\~ well the reason i stopped was i was already\~ working uh frankly 24 hours a day on on training\~\~\par

(54:04) the army intelligence officers and so i was\~ exhausted after 30 days of doing this sorry\~\~ but if you want to do it feel free to do it i've\~ told you how to do it so you can just go do it\~\~ okay now i'm having a very surreal experience\~ for a large portion of the conversation\~\~ you seem absolutely cogent coherent\~ well-informed well-spoken and then\~\~ there's this part that just doesn't make any\~ effing sense and this is the part that doesn't\~\~ make any effing sense rolling up in a bugatti\~ to your gulf stream to fly to your island\~\~\par

(54:40) is a very powerful argument that you know what\~ you're talking about bitcoin community has been\~\~ insulted by the economists they've been laughed\~ at by financiers and they have a phrase which i\~\~ really detest but i think you need to hear it and\~ it's called number go up and number go up means\~\~ that when you're talking to an esteemed professor\~ of economics or finance and they're telling you\~\~ that you're an idiot and you say well why\~ don't you visit me at the yellowstone club\~\~\par

(55:10) i'll i'll send the jet around for you number go\~ up is an incredibly powerful argument because\~\~ of human greed and avarice okay i think we\~ made this point what do you think about you\~\~ know when we hear that they're unidentified aerial\~ phenomena that's one thing but then when somebody\~\~ like bob lazar comes out and says that he worked\~ at a place called s4 which is a part of area 51\~\~ on alien reproduction vehicles literally

reverse\~ engineering crashed ufos what are we supposed to\~\~\par
 (55:41) make of things like that well i mean i'm skeptical\~ to the degree behind the scenes we can check on\~\~ his clearances and so on i have reason to be\~ skeptical so i can't absolutely rule things out\~\~ because everything can be manipulated sure you've\~ looked at the magnesium bismuth piece from roswell\~\~ which was i guess a grandfather who was a colonel\~ in the roswell cleanup collection this was sort of\~\~ left in the safe and the grandson found it you do\~ material analysis on this bismuth magnesium piece\~\~\par
 (56:14) the magnesium ratios were way off i mean not even\~ close to being natural it can micro size wave guys\~\~ channels you know to me only data counts have no\~ idea whether the story of somebody finding in his\~\~ grandfather's diary and so on is true or not so\~ the only data i have is this piece of material\~\~ and does it have any unusual properties that that\~ are interesting well i can check that out and i\~\~ found out that it did have this miniaturization of\~ waveguide channels well below wavelength which is\~\~\par
 (56:51) quite an accomplishment but once\~ you realize how many materials work\~\~ you can do that so so that was interesting\~\~ i definitely believe that many people have\~ been through the experience of contact\~\~ whether or not that's completely in their head or\~ a government induced hypnotic state or who knows\~\~ what i no longer believe this is just a bunch\~ of people looking for attention well it's good\~\~ that's what i'm saying that that makes it the most\~ interesting thing in the world because it's either\~\~\par
 (57:31) the best if you're the force ranked psyops it's\~ up there in terms of you know the the intersection\~\~ between interesting and effective it's good how\~ we really appreciate you being here eric thank\~\~ you for co-hosting you were a great uh co-host you\~ asked a lot of questions that i could not jesse\~\~ i really appreciate what you're doing trying to\~ get this issue out in front of the public and\~\~ get it taken seriously and putting it on it you\~ know it's best foot forward awesome thank you\~\~\par
 (57:58) perfect conversation though it's always very\~ exciting to you know delve into these things\~\~ so yeah i think so too and i think there are\~ a lot of loose threads but uh to be content\~\~ with a lot of loose threads yeah we'll\~ chase them all okay sounds good thanks\par

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Dr Hal Puthoff Presentation & Q&A, UFO/UAP Disclosure Special. - YouTube\par
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Transcript:\par

(00:04) does the u.s government agency example nist or department of energy dod or any private u.s company organization or any similar entity anywhere else in the world have in its possession one or more vehicles in whole or in part built anywhere other than the earth [Applause] hal is the president and ceo of earth tech international and the director of the institute for advanced studies at austin the iasa he's earned his phd from stanford university in 1967 house professional background spends more than five decades of research at\par
 (00:43) general electric sperry and the national security agency stanford university sri international and since 1985 as president of eti and director at iasa he has published numerous papers on quantum physics lasers and space propulsion and has patents issued in

the laser energy and communications fields hal regularly serves various foundations corporations and government entities including of course the department of defense and intelligence community as an advisor on leading edge technologies and future technology trends\par

(01:23) was a senior science advisor and contractor to the dod's ossap and atip program and was a founder of the to the stars academy tsa i'm pleased to have and introduce dr hal pudoff and hal i'm turning it over to you okay uh you should see my my starting slide is that uh showing up says uap studies managing the transition intelligence problem to scientific problem okay let's start with the intelligence problem as all of us or many of us who are attending this conference know for many years actually several decades\par

(02:12) the air force had a program to take in reports from the public and also from military people and try to analyze them and come up with some kind of conclusion and that was project sign project grudge project blue book and so on but eventually the air force kind of wanted to get out of it frankly so they gave a contract to the condon committee at the university of colorado and they did a year study and then they finally said science is going to be served by chasing this subject area so we recommend that it be terminated\par

(03:00) and so in fact in early 1970 it was terminated and now what that meant was that after that time if you were to call the public affairs office at the in the air force and say well what's the latest with regard to ufo sightings it would turn out that uh they'd simply say oh no no no we we got out of that business in uh early 1970 uh nothing to see here uh we're we're not we're not investigating ufos anymore however that actually wasn't true it turned out that the very memo by general bollander that terminated the\par

(03:47) project terminated blue book project down in the frying print had a statement reports of ufos which could affect national security would continue to be handled through the standard air force procedures designed for this purpose so in fact the truth of the matter is the work did not stop in 1970 it continued in the shadows primarily in black programs not revealed to the public and it went on that way for some decades until finally in december of 2017 the new york times was able to come forth with a front page story\par

(04:34) revealing one of the programs that had been carried out in the recent years called advanced aerospace threat identification program or atip this was a major story it sort of started the whole current media coverage that we've been seeing of course as soon as that story came out mainstream press coverage was all over it and what was different this time was really the quality of source is going public in previous times if you had someone just simply saying they saw light in the sky or whatever uh you know the tin foil hat crowd label\par

(05:21) could have been thrown at it the subject was very stigmatized but here the quality of sources going public once this new york times article came out uh consisted of people like ex-senate majority leader harry reid who in fact was the one who set up the most recent program top-rated f-18 pilots like dave fraver and so on who encountered uap at close range and a number of significant dod and intelligence community officials so suddenly we had some coverage without the usual stigma well what about this program atip actually it was initiated in 2008 under\par

(06:07) the acronym asap advanced aerospace weapon system application program but very quickly by anyone in the program we use the nickname atip advance aerospace threat identification program so that that's that's the phrase i'll use to describe it well the program

was initiated by dia defense intelligence agency and they were concerned about threat from uap as they said crafts drones of unknown origin now what was different now as compared to earlier years is there are multiple surveillance and reconnaissance platforms of high quality\par

(06:50) and so true intelligence assessments could be carried out with really good data because we had excellent reconnaissance data coming in and the conclusion was that there appeared to be intelligently controlled mechanical devices capable of performing feats beyond current technological capabilities for example exceed the sound barrier without a sonic boom so this this is what caused the program to be set up now from the dia standpoint of course it's department of defense so their job is to defend the country against potential\par (07:30) threats obviously they would have to be concerned about what could be called the current threat and that is this phenomenon is going on possibly for foreign derivation say the chinese and russian could include off-world no way to tell until it's absolutely nailed down and being globally deployed and tested including in the continental united states now that's kind of the obvious threat and you might think that that was really the threat of concern as it turns out that was not the most major current threat\par

(08:10) the major current threat was really future threat what if potential adversaries say the chinese russians whoever achieved significant breakthroughs and development of disruptive technologies based on their own evaluations of uap phenomena from sensor data or crash retrieved materials that was the real concern for the dia that's what's in their remit to be paying attention to and while they should be concerned about that uh in in the in the warmed up period in interacting with the soviets we were able to obtain a major\par

(08:55) document about the thickness of a telephone book showing that for example as early as 1991 they had a very major ufo investigation program going forward under the military unit 73790 it was a large-scale effort i show this graph i recognize that it probably won't be able to read the fine details in these in these blocks but basically i show it to emphasize the fact that they had a number of military organizations a number of science labs a number of materials labs all cooperating together and collaborating to try to get to the bottom of\par

(09:41) understanding what the uap phenomena actually was so this is a serious effort for them and of course they're worried about the same thing we're worried about and that is suppose we make some great progress on the basis of materials or crash retrievals or just our analysis of the data they'd be worried that we could get the jump on them so this went back and forth by both sides typically under black programs and of course now with all the news coverage that's come out in the last couple of years i'm sure many of us have seen interviews\par

(10:23) of commander dave fravor who talks about his interaction with the tic tac and again uh for those who say well can you really determine something from kind of a fuzzy video or whatever it's important and he's emphasized that when these events occurred there were multiple sensor platforms recording this radar recorded its presence ir recorded its presence dave fravor had eyeballs on it even did a little semi dog fight chasing it and so anyway that that's been now presented to the public and of course uh many of us are familiar\par

(11:09) with louis lozando who's had a lot of media coverage he was one of the last directors of the a-tip program and he felt that not enough was being treated seriously and so for that reason he left the pentagon in order to be more public about doing whatever he could to

legitimize the topic many of you are familiar with lou he was a keynoted speaker at the first scu conference a couple of years ago recently appeared on 60 minutes so and on tucker carlson a number of times so uh he's out there doing what he can to get the word out\par
(12:01) lou is the person that toward the end of the program that i reported to so i know him very well now one of the outcomes of official legitimization and all this media coverage was for the first time the navy confirmed that the videos for example really are unidentified aerial phenomena that's really a significant statement for example if it were let's say secret navy platforms drones whatever that they didn't want to reveal okay then they wouldn't uh they wouldn't reveal it but they wouldn't come out\par

(12:41) with a statement in the boldface lie to say they're truly unidentified so this statement that they're unidentified is to be taken seriously now as a result of all this public exposure the navy drafted new guidelines for their pilots to report the ufos as we now know if you've been following the news pilots have been seeing ufos all the time over the last decades but by and large they didn't report them because they were concerned that they would lose their flight status be thought that maybe they were\par

(13:21) drinking or on drugs or something but now that uh this has all come forward it's now a requirement that they report uh what they see and so that's why even now a number of their reports are actually getting leaked out to the media okay let's get back to what the dia program was about and this is the transition from the intelligence problem which it obviously is to a scientific problem the broad area announcement asked that this list of engineering aspects be addressed in this program the contract monitor from dia\par

(14:15) brilliant physicist very smart guy i'd have to say he's one of us basically uh he recognized that what really would count to make any kind of progress in this area in addition to just simply collecting data on observations would be to try to actually figure out anything we could about the technology involved and so that's what the program was primarily directed towards now dia chose bigelow aerospace as a contractor to address the potential uap threat big aerospace established bass bigelow aerospace advanced space studies\par

(14:59) and hired some 50 investigators and so on and this is this is a big operation and bigelow contacted me at earth tech international and asked that i collaborate as a subcontractor which i of course agreed to do and so that's how i became a subcontractor and a senior advisor to the atip program so now because we have been and we have the remit to look at engineering aspects we now had the opportunity to manage the transition from the intelligence problem we can let other people worry about to the scientific problem which is of\par

(15:41) interest to us so let's start with a hypothesis which is exactly what i did let's assume materials are potentially available from uap for example crash retrieval or if we don't have materials now we might have materials in the near future so let's assume that this is the case if so as you can well imagine it would be subject to high level security and compartmentalization not so much that it's to be kept from the american public but rather anything that might be learned in a program like this\par

(16:23) could be kept from potential adversaries who will be looking for clues to develop their technologies well how are you going to handle that you got high level security compartmentalization be difficult for contractors that might be working in this area to obtain expert opinion and critical technologies you just don't call up your local university phd and say you know i've got a problem here i've got this chunk of ufo material i can't quite understand it

would you take a look at me it would all\par

(16:55) be out i mean that's the end of black program coverage of it so how do you address this issue high-level security compartmentalization difficult for contractors to obtain expert opinion critical technologies this was the challenge that i was given okay my response to the challenge was pretty straightforward i said okay uh well let's commission white papers about all the from subject matter experts around the world unclassified and simply asked them where their particular aerospace related subject area would be\par

(17:36) in the year 2050. i represented it as a general survey of aerospace futures of course i didn't say you know this is really to help us out with the ufo program no i just simply said this is a general survey but these are unclassified white papers so i could go anywhere in the globe and i did i mean some of our best papers on invisibility for example came out of scotland and i told the people that i contact contracted to develop these papers that they were free to publish the results in in physics journals that'd be just fine\par

(18:19) so i let out 38 contracts over a two-year period i'm going to show you the topic areas that i covered these theories that i considered significant and that i thought we should get our best evaluation of and you can see even talking about things like wart drive space diametric engineering traversable wormholes i mean we weren't just digging around the edges we were basically going for the juggler to the degree that i thought we could we could do it here's another set of papers the high-energy laser weapon one was\par

(19:09) classified but the rest the rest were unclassified pushing the envelope negative mass propulsion whatever anti-gravity for aerospace applications as you can see we really wanted to cover the very edgy topics but since we were going to experts and asking them where their subject would be in 2050 we were giving them permission to extrapolate to think out of the box and that's what gave us really good data another set of papers this is some summarize sun sums up the 38 even field effects on human biological tissues\par

(19:58) where there have been interactions that might have led to injury or something so anyway there we were what do i do with these papers well i wrap them all up bundle them all up and send them back to dia and they're put on a pentagon server called jwix defense intelligence reference documents durs as we call them these were then accessible by contractors by the intelligence community by dod personnel but they were not released to the public that was not the case here now i'm told that this set of 38 papers basically became the best seller in the\par

(20:50) pentagon j wick system for some time so it was a very high quality set of papers and people from all different kinds of areas accessed them and were interested in them even if they weren't particularly interested in the uap phenomena now recall i said that these were not being released to the public however as i mentioned i told the individual authors that they were free to publish their results and so if it turns out that you have interest in any of the subjects that i've listed here if you go to the documents section of the scu\par

(21:35) website you'll find the list of the papers along with the authors and their academic positions or whatever and so feel free i encourage you to contact them in any areas that are of interest to you and see if they'll share what they developed in developing these papers now to give you an idea of you know what kinds of topics were covered and how thoroughly were they covered i'm going to give an example in space time metric engineering i use this example because actually this is the paper that i wrote for this series of 38 papers\par

(22:19) and the challenge that i gave to myself was can reported anomalous observations of

uap be accounted for on the basis of known physics and apparent reduced inertial mass right angle turns and high velocity and so on and generally if you're listening to the news tv interviews and so on it's always emphasized that this all seems to be so well beyond any kind of physics we can imagine but actually because the approach i took my answer was to the question can report anomalous observations be accounted for and based on new physics\par (22:57) my answer was yes and i'll show you why i say that what i used was an engineering approach to general relativity which is kind of an unusual flag to carry of course we know maxwell's equations give us electromagnetism and then by engineering the equations of electromagnetism we develop wi-fi radar tv whatever well einstein's equations are sort of like maxwell's equations up till now they've been used primarily by astrophysicists who are working out the consequences of the merger of neutron stars or whatever\par

(23:43) but anyway there's a space time metric that comes out of einstein's equations and so the question i posed to myself was well can we engineer the space time metric for interstellar flight at least in principle even if we don't have the energy or technical tools to do it at least what do the equations say is possible and so in examining uh einstein's equations i was able to find out that in a certain select set of conditions effects that seem to correlate with uap observations could come out of solutions of\par

(24:29) einstein's space diametric equations here i've got in terms of a particular parameter kappa but under the right engineering conditions you could reduce your mass you go faster in the speed of light get repulsive anti-gravity forces uh just what you would like to see the way i arrived at this was that i took a sheet of paper and left hand side i wrote down what are all the claims that come out of observations of uap and then i wrote down on the right hand side of the paper what are all the effects you might\par

(25:06) expect to see if you engineered the space diametric and they fit together hand to glove i'm going to throw in one high-tech slide here for the general relativity buffs in the crowd where i specifically list the space diametric components if you're interested uh as i said we were permitted to publish our papers so i published this paper in a journal peer-reviewed and it's posted on the scu website in the document section so if you're into this kind of thing feel free to take a look and what kind of predictions do we get\par

(25:50) out of it well what about the velocity of light constraint you can't go faster velocity of light well that's a statement of special relativity not general relativity and we hear about wormholes and so on well to an engineer the speed of light is given by that equation there c is one over the square root of mu zero epsilon zero the permeability and permittivity of the vacuum so in space diametric engineering you go in and you simply re-engineer mu and epsilon to be much smaller which means that in that region of space\par

(26:24) c is much higher and therefore zipping across the universe and a wormhole is not in principle ruled out and i'm talking science fiction here i mean this is academic textbook stuff that general relativity people investigate all the time so that could handle the issue of well they're so far away how could they ever get here another consequence of engineering uh space time metric under conditions that would lead to the kind of effects that that we think we're observing is that there tends to be a blue shift\par

(27:05) what do i mean by that i mean in the rooms where you're sitting right now you don't see most of the electromagnetic spectrum it's in the infrared it's in the heat spectrum what we see with our eyes are invisible is a relatively small part of the em spectrum but under the conditions in which space-time metric has been engineered to produce the kind of effects you

might expect to see in the uap you get blue shift which means first of all some of that infrared is going to be upshifted into the visible part of the spectrum\par

(27:39) and so you'd expect craft to be actually quite bright which is one of the things that in fact is reported well way we could check that out set up some spectrum analyzers and see if you record a blackbody spectrum that's been blue shifted so that's a challenge i give to the spectrum analytical crop and of course with this blue shift there's a prediction of near field exposure injuries for example the visible can be blue shifted up into the uv and you get sunburn injuries often reported by people who claim to have\par

(28:23) encountered a powered up craft at relatively close range or if you're too close i can even some of that visible spectrum which ordinarily isn't harmful can be shifted up into the soft x-ray region and you get radiation injury cash landrum case for example you know could fit into this category so there are specific predictions in fact during the atip program we took a look at some data that came out of clarissa island investigation in brazil 1977-78 there's a tremendous amount of data collected by the brazilian air force\par

(29:11) thousand pages of documents photographs film physiological effects it was like scenes out of close encounters as the third kind so we collected up all that information and examined it and i'll just give you one one graph here about it where we listed the medical injuries and some of these same responses to claimed encounters at close range do correlate with what we've seen in in some cases that we investigated so that's that's a prediction that comes out of space time metric engineering [Music] and by the way it isn't that i thought\par

(29:55) of this all by myself it turns out that there's an excellent book that most people in ufo and uap investigation seem to have overlooked it's called unconventional flying objects written by paul hill who's the chief scientist manager at nasa langley research center he came up with the idea that in order to match into the observations the craft must have what he called a direct acceleration field and uh when you read his book you realize it's what today we would call metric engineering it says gravitational like in nature\par

(30:36) gravity canceling it would permit hundred g's relative to environment accelerations without any onboard high g forces you could get supersonic flight through the atmosphere without sonic booms which is one of our observations and he did detailed calculations and computer simulations to show that with this metric engineering approach you end up developing subsonic flow patterns of streamlines so you prevent shockwave drag you prevent aerodynamic heating just exactly what seems to match into the data he predicted flight profiles that\par

(31:17) matched observations and so we came to the conclusion that uap appear at least some of them appeared to be engineered platforms on the order of 30 tons i think you got that number from some dents and some railroad tracks demonstrating 100g accelerations 9 000 miles per hour in the atmosphere well of course as you can imagine while he was a chief manager at nasa no way he could he could publish his book back in those days it definitely would have been a killer for his profession but he arranged that the book would be\par

(32:00) published posthumously and so i highly recommend it if you haven't seen the book please please get it and read through it it's very detailed a lot of graphing a lot of excellent work now based on all of this of course i and my colleagues have not been quiet about it uh we've listed uh and provided i listed a provided number of briefings to the senate armed services committee the senate select committee intelligence briefings carried out by myself

by lou elizondo who as i mentioned earlier is the retired director of the\par
 (32:40) dod's a-tip program chris millen a long career as deputy assistant secretary of defense for intelligence so he has really good connections into the congressional committee and so he's been very active in briefing senators and congressmen my colleague eric davis who is my chief science officer at earthquake international and so he's been involved in a number of these briefings so a lot of briefings have taken place behind the scenes now as we've heard from what rich said earlier the pentagon has set up a uap task force\par
 (33:27) it was requested by select senate committee for intelligence senator marco rubio who's the chairman of it it was actually established and approved by the deputy secretary of defense norquist so this is finally getting treatment at the high levels where it deserves to be evaluated it's led by the navy under the cognizance of the under secretary of defense for intelligence it was created to improve quote understanding of and gain insight into the nature and origins of uap the mission is to detect analyze and\par
 (34:12) catalog uap that could potentially pose a threat to u.s national security that's the pentagon's requirement and they were told to submit a report within 180 days to congressional armed services committee supposed to be a broadly available unclassified report with a classified annex and that's be if they if they keep to their deadline that should be coming out before the end of june so we'll see what what it says and that's being taken seriously all over the globe uh here's a major document that came out of the israeli\par
 (34:55) think tank the bagan sadat center for strategic studies where they outline whatever has been released so far about the pentagon's uap task force and of course recently just last few days we've seen additional press coverage in the new york times about the upcoming release of this report so it's definitely got everyone's attention so what does that mean for the uap topic i think we can finally celebrate that the uap topic has come of age the former stigma is significantly reduced the major factor i think is due to the\par
 (35:39) increased sophistication of surveillance platforms when just observations or a quick photo you know reason to be not so sure but now with our unbelievably sophisticated surveillance platforms getting data from multiple sources all coordinated and collaborated you just can't set these observations aside so the data that even that's now public available lends itself to analysis and engineering evaluation as i showed with regard to the 38 papers at least addressing topics that would be of significance for this area\par
 (36:30) therefore i think our scientific and engineering community can legitimately look forward to significant progress in our understanding of the uap topic as the future and our society for that we have here the scu and mufon and other areas beginning to make their contributions i think we have a very rich future coming along in which this topic will be treated seriously a lot of the stigma will be downplayed and so it's going to be an engineering topic of great interest to all of us and i saw even just today in the news\par
 (37:12) that the chinese also had their own [Music] uap task force set up to try to understand what's going on so this this is a subject that's finally come of age and i think we're going to hearing a lot about it and we all have an opportunity to contribute something of value so that is my comments and be glad to take any questions hey uh one question for hal this is joe dinoto uh can you can you talk a little bit about the calaras event in brazil obviously at the unclassified level but uh is there any any perspective or\par
 (38:03) additional context you could offer about that event that you could correlate with say other cases that may have taken place uh in europe or italy relative to directed energy

capabilities or any kind of similarities between that event in brazil and other events in other places i think the answer basically yes as you saw in my graph there's an enormous amount of data and it lasted over a couple of years we actually met with the general from brazil who's in charge of seeing all this get evaluated and because there was\par

(38:55) so much apparent direct interaction in many cases between the uap phenomena and some of the civilians there living on claris island that's why we got in addition all of the medical data about potential damage to people so in our case we had medical doctors who you know have access to studies carried out in various u.\par

(39:32) s agencies and scientific groups like los alamos whatever in which there have been a collection of data typically done with animal studies and so on which show what kinds of injury you might expect when getting too close to let's say what i would say is blue shifted infrared i mean up into the microwave and low x-ray region and so on and the data from any studies where people have for example accidentally gotten exposed to high-intensity microwaves or whatever and then looking at the data out of the claris incident\par

(40:25) our medical investigators said that looks looks pretty pretty correlatable and so in fact uh you know some of the people that are involved in those studies are also involved in looking at additional data from you know what we call the havana syndrome and so on so it does seem like it's all of a piece i don't think we have the answers finally nailed down for sure but there does seem to be at least relatable elements of all of those studies the next question folks i'd like you to be able to use the question and answer in\par

(41:06) uh please direct your questions there we're going through them and giving them out as opposed to doing this so we want you to hit the people there's a lot of people that have already put in questions hal uh here's one uh wouldn't it be the right time to bring in the russian and chinese scientists as well i'm convinced we can learn a lot from their history in the uap ufo or the uso research well it's it's a double-edged sword obviously uh having people present their sightings from other countries and what kind of data\par

(41:40) they've collected um would certainly be of use to us but of course if you have that colloquy we're going to have to share some things that we've learned and of course that's that's what's a great concern at least in the dod and intelligence community and that is they may be missing a critical piece of data to make some giant step forward and we just happen to have that particular critical piece of data and if we shared it with them that would be a problem so on the one hand certainly at the unclassified level\par

(42:21) if we can find ways to collaborate with representatives of ufo investigative teams in china and russia i think i think it would be a move in the right direction but it would have to be handled very carefully agreed the dod definition for threat includes elements of both intention and capability assuming the capability has been adequately demonstrated by recent videos then what remains to is to determine intention but if we do not know what these craft are or who or what controls them then how can we begin to assess intention what\par

(43:00) would it what would be the criteria is it merely that they have yet to to do harm well one of these sort of signatures which i think you mentioned earlier is the fact that a lot of the uap observations have been near our nuclear facilities and specifically as has been reported a wonderful book by robert hastings on ufos and nukes some of our nuclear silos have been turned off and we happen to know that the same thing has happened in the former soviet union so when you look at that and you say okay what does that mean in terms of\par

(43:48) threat well one way to interpret it is that they're good guys and they're just letting us

know that if we get too frisky down here and decide to have a nuclear war they can turn it off on the other hand if they're bad guys you could say okay before they're just the reconnaissance group to check out whether they can be sure to take out our nuclear defense when the armada shows up so of course intention is everything and at this point as far as i know we don't really have a clue we read all the tea\par

(44:27) leaves to try to figure out what it is um so that that that's it's still up in the air and that's why uh i mean fortunately at least we haven't had a lot of uh shoot downs of american craft or other country craft chasing ufos so that that's somewhat uh encouraging but it's really intention is sort of the big topic of interest that we really wish we could get to the heart of and we're not there yet so it's it's uh up in the air but there's no doubt that the correlated sightings\par

(45:11) are definitely uh seem to be tracking our military elements do you have a working hypothesis as to how these craft navigate while encompassed in the field given proposed electrogravitic effects or fields effectively remove the interior craft devices from the local space time to first order i'd say no we have not figured that out on the other hand there are certain elements of what it's like if uh the if the model is correct about you know space time metric engineering inside the craft everything is working\par

(45:54) relatively normally it's just that when they look out they see the rest of the world in redshifted and moving in slow motion so at least in terms of detecting their environment uh it's it's pretty reasonable uh you know what what they would be able to see now i know that in investigating things like super luminal travel and wormhole travel you get into the whole thing about well can you get ahead of that in order to direct yourself and so on and that that those are questions that are still being\par

(46:31) investigated by people doing various general relativity models but on the other hand there's a kind of a simple side of it and that is the people inside the craft if there are people in the craft uh to them things are very very normal uh so even though from the outside we say oh you know why aren't they fried by the blue shifted radiation and so on well it's that under this model all their atomic structure and chemical elements are also all blue shifted so relatively speaking to them they're in a kind of a normal\par

(47:08) space okay uh next question would be with regard to intention it would be important to know who they are and where they are from what can you say about that i can say i don't know the answer to that all right uh hi the subject of this conference is compelling i just want to know if there will be some mention to the supposedly big declassification of ufo-related documents by several u.\par

(47:44) s organizations after the law signed by former president trump and enacted in last december i really have no clues about what would be disclosed but general media and ufologists keep saying that the big thing is coming what are your thoughts about the big thing from my uh contacts and so on i think although there will be enough information coming out to finally later rest that this is not a tin foil hat subject and there's reality to it and the government is making a concerted effort to to learn more about it i think any truly deep state\par

(48:33) increase knowledge is likely not to come out i don't see all the barriers falling understand let's let's either get on with it or allow the question to fade away as it deserves the answer is either yes or no does the us government agency example nist or department of energy dod or any private u.\par

(49:01) s company organization or any similar entity anywhere else in the world have in its possession one or more vehicles in whole or in part built anywhere other than the earth i cannot comment on that okay for the entirety of your paper oh excuse me let's go back to this this just jumped on the screen for the entirety of your paper you're differentiating between altered space time due to a typical seller mass versus space time engineered by an advanced craft yet in the time alterations section are you suggesting that a craft could engineer both a time-slowed condition\par

(49:48) giving an individual the experience of missing time as well as the time sped up condition can you elaborate on missing time yes in fact i addressed that in my paper so you could check that out because basically if you're able to change the temporal aspect of your surrounding space you can either speed it up or slow it down and one of the off one of the reports often that they come forth people say well there i was i was close to a craft and suddenly all the sounds of nature the birds the wind you know i didn't hear anything\par

(50:33) well if time has been slowed down in that area and has gone into infrasonics so that you wouldn't hear it that's one of the elements that you would expect to to experience and so then you also have obviously both kinds of things where you would interpret it as missing time because suddenly when you if time got slowed down so maybe you might be let's say in the crafts slowed down vicinity and for five minutes or whatever but meanwhile outside several hours have gone by then when you emerge you say oh my gosh i've got missing time it might\par

(51:14) not be that you actually missed any subjective time it's just one of the consequences and i i discussed the details of that in my paper all right next question is is there a particular interpretation of the quantum measurement problem that fits best with the work you've done thoughts on boom well i'm i'm i'm i'm in a fiction out of uh bohm's general approach and um but uh that that all has to do with you know quantum effects and so on and uh in pursuing the kind of models i pursued for the uap it's been general relativity\par

(52:01) of course and uh so general relativity and quantum theory have have not locked hands yet so even though for other reasons and for other technologies that i'm involved in i'm a big fan of boom and take into account quantum effects uh i haven't seen the connection to the uap area okay uh dr puthoff uh one of the durd reports was published in the open literature by professor winterberg at unr in it he goes into great length about possible ways to mine exotic matter caught in the moon's gravity well yes\par

(52:42) what was your opinion on the paper and can you comment on its focus on the moon well certainly uh the general subject was exotic matter negative matter and so on and and winterberg is absolutely a top physicist he's a student of heisenberg in the old days and he's been part of weapons development programs and so on so so he's somebody you you take seriously but in this paper you certainly extrapolating uh you know kind of way out there because as far as i've i know even in talking with him there hasn't yet been\par

(53:24) any evidence of that kind of matter being available and then the particular application he thought of with regard to the moon struck me as being really on the edge so i don't really have any further commentary on it uh here's a statement or a question would nasa's recent statement and interest to now study this phenomena be redundant if not is there a specific area that you would recommend that they focus their efforts on well in in the in the public uh unclassified menu there are number of claimed pieces from\par

(54:11) various craft from crashes or you know one was shot off decades ago that has pretty

good credibility and so on so i think setting up a materials lab would be the best and then secondly if there's any evidence of bases on the moon they might have picked up that would certainly be an area of interest i don't know the answer to that by the way only you know rumor and claims so so anyway i would say materials and any observations that show up at any [Music] tracking of various environments those would be the two main things\par (54:56) um isn't it going to be very difficult to make meaningful scientific progress in this area so as long as as it's controlled by the national security concerns well as as basically i was addressing in my paper there is a problem because even if you've got some really good data that you feel you can't share the national security concerns really holds back the scientific enterprise fortunately though i think things are warming up you might say and now that the stigma has been reduced significantly i think there are more cases\par (55:39) that will come forward and more examples of possibly materials will come forward so i i think that real progress can be made even despite the fact that there there's a large national security uh significance to some elements of the subject um i guess the question uh this is an interesting one uh that i've you've often pondered and you probably might be aware of it but anyway uh do you believe that the three navy patents by dr salvatore cesar piece the so-called ufo patents represent any true technical breakthrough\par (56:20) i have no evidence that they do i mean some of the concepts involved that he laid out have a certain resonance with some of the concepts that i consider but to the degree that there are claims that it's been observed in the laboratory or technologies have been built to demonstrate those effects i have no evidence for that and i think that the navy has pretty well retracted and i don't think it's just a cover-up i i think it was correctly retracted uh there's a it says reporter here hi everybody uh you touched on this today\par (57:01) in a cursory way already but from speaking with dr wells the author of the pulsed high-powered microwave technology paper expressed surprise to me about his work being included in this list of dirds so i'm wondering specifically how researchers scientists and engineers were approached and contracted to produce these i can tell you exactly because i wrote the contract and basically uh and by the way in response to what well said i have once of course we thought this would never particularly come out as being part of a\par (57:40) uap effort and so once once senator mccain i think was arranged for those lists of papers and authors to be publicized i just i really cringed wanted to hide below my desk thinking all these people are going to contact me and say what you didn't tell me okay what i did was i said i'm basically representing bigelow aerospace who's an aerospace company you know moving forward into the future and we'd like to do a survey on where your particular area might be uh you know by the year 2050 and this is just to help guide\par (58:23) investment and technology development in the coming years so the bigger aerospace can be right the tip of the sphere in terms of beginning to explore space and so on so so that that's all they were told that it was a survey for an aerospace corporation uh thank you uh isn't it time for science to re-evaluate steady and change focus on the future research in this area well i certainly have that viewpoint and i'm glad to see that seti some seti people have begun to consider uh archaeological setting that is are there any\par (59:10) evidence of let's say materials possibly on the moon or on mars and so on not just looking for signals i've i've always been pretty skeptical that velocity of light transmission signals were likely to be very effective if for no other reason almost certainly to be encrypted and everything else so so no i think seti really has to expand at least you know professor

townes charles towns laser inventor said well should at least expand beyond em and uh include looking for laser signals so that that was optical seti\par

(59:55) that was a step in right direction but but i think also the idea of looking for say molecules and other genetic structures that may be somewhere in the earth that might show some different kind of pattern that you might be able to claim was et related that that kind of so so if seti is broadened to include all possibilities and and if they eliminate the idea that well they never came here then i think seti could uh make some real contributions per your paper presented is the manipulation of the metrics associated with the theoretical\par

(1:00:45) alcubierre drive essentially creating a finely tunable wormhole depending uh on intensity of warp field generated behind an object and the warped field well that's one that's in fact that's one example i give in my paper but since his original publication of the alcubierre warp drive there have been a number of papers by i mean well over a dozen of different kinds of both warp drives and wormholes and my colleague eric davis has become a super expert on on that kind of thing he's right there in huntsville at the\par

(1:01:24) aerospace corporation you might you might talk to him so that that that's an example and it looks like it's not an example that is likely to be engineered and there's some problems with it but some of the additional papers that have taken off with that as the guiding principle are well worth taking a look at our tic tac type phenomena being seen in other countries right now [Music] yes they are and um and just recently lou elizondo brought up another point which was that back in the 50s tic tac exactly tic tac that looks like a giant\par

(1:02:14) tic tac had been reported and so he recently uh i guess i guess his might have been on tucker carlson recently last couple of nights he showed this paper from the 50s generated by the military it had been finally declassified in which they saw precisely the tic tac shape based on your extensive study of uip is there any one theory of their origin that you think is more plausible well it's it's it's a complex question and i've got a complex answer and uh in fact i wrote a paper which i haven't published called the\par

(1:03:04) ultra-terrestrial hypothesis and so i listed what are all the options okay obviously it could be something by one of our military groups here on the planet well that's not standing in very strong legs these days well suppose there's uh somebody arriving from a far away solar system well that's the standard et hypothesis but you know maybe there's a group from the middle ages that happened to stumble on any gravity and they built a lab you know in the himalayas somewhere and uh it's a terrestrial group\par

(1:03:48) and they just happened to discover that or maybe some bts landed here uh 50 60 000 years ago and they're just hiding out and not making themselves particularly known and then suddenly when we're dropping atomic bombs and polluting the environment then we're messing up their environment as well as our own so they decided to come out of hiding a little bit i mean there's there are all these possibilities so i think in fact what i recommend in in the paper that i wrote was that we should forget the science for a while\par

(1:04:25) and really get detectives to work following gumshoe kinds of aspects to determine of all the possibilities and of course we have jacques fillet who says you know maybe they're involving additional dimensions and so on so so i think all of those should be on the table until there's enough data to take them off the table my personal viewpoint is i well been i've got mixed opinions i tend toward the et hypothesis but that's just barely above some of my other hypotheses if uh if blue shifted light is coming\par

(1:05:07) out of the uap presume presumptively there is a light source on the uap that is being

blue shifted if we limit to night sightings if we're limited then this the number of photons would not increase but just blue shift what would be producing the original light source before the blue shift well for one thing simply the heat spectrum of the craft and the craft is let's say in our atmosphere and probably has a temperature not that much different from from the surrounding atmosphere and if that gets blue shifted\par

(1:05:49) then you see pretty strong visible light due to the blue shifted infrared spectrum so that would be that would be one thing in terms of sending out beams i mean if they wanted to signal someone on the earth they could send out what to them would be [Music] let's say an infrared beam knowing it would be blue shifted um actually actually whatever light comes from a craft would be blue shifted so you could arrange whatever you wanted if you have control over what kind of optical signals you're emitting is it conceivable that most or all of\par

(1:06:43) the uap are van newman probes possibly capable of self replication and that they're innocently observing us if so then might the risk be and only an annoyance say we choose to formally acknowledge them then all three billion of them did decide to say hi but uh that way they say hi is to disperse themselves hover at fifty five hundred feet and hang around for eight years well i i'd certainly go for that i mean you can't rule out von neumann probes i mean that's very uh sophisticated but you might say realistic uh kind of thing\par

(1:07:24) to think about and if they're self-replicating uh they can certainly account for while receiving many of them so um why not what are your thoughts what do you think about that of any kind of an international working group or on an international level that would allow for people who are you know as opposed to this like you know each country doing their own thing with national security how do we get beyond that and get into the uh the international working group i certainly think that's a great idea and i would encourage it\par

(1:08:04) and uh you know the scu as an organization who in accordance with your map has brought together at least interest from from countries all over the globe uh i mean the scu could be just such an organization i know mufon tries it and has had some some carry weight there but anyway i think i think would be a good idea and certainly uh specifically in the atep program we went out of our way to interact with people from various south american countries and so on and so getting a collective global group to address it in common\par

(1:08:44) and begin to share whatever particular pieces of data they have i think that would be great i mean we learned a lot from the tehran incident where the tehran fighter pilot headed toward a ufo and then had his weapon systems and communication system turned off but the rest of the plane operated correctly and that uh you know these events that are happening around the globe interacting with different forms of the military and so on yeah definitely anything we could do to promote that i would be all for chocolate by the way jacques villa yeah\par

(1:09:29) acting with the french group japan and so on has been very strong on that issue agree uh did you ever get a chance to read uh and if so do you have any thoughts on ning lee's 1993 paper on gravity grab a gravito electric electric coupling via superconductivity well i certainly read all of her papers i also participated in the mitre conference where she made a major presentation and um originally i thought you know she may really be onto something but the fact that it hasn't particularly gone anywhere and some of the critiques uh that have\par

(1:10:15) been published from a scientific viewpoint i found kind of compelling so it's definitely

in the gray box on the shelf same with the padlet off results from russia uh ufos appear to be interested in our technology are there potential concerns for ufo encounters that should be considered during the upcoming efforts to colonize mars i can imagine that if ufos are spotted on mars by colonists this could induce a great deal of panic [Laughter] well it would be nice if we're going to run into denizens there that we would have some kind of\par (1:11:02) interaction and protocols before we got to that point so that's what i would hope that people would be thinking about and working on peer-reviewed and or published papers typically require extensive corroborating data and reproducible experiments for field experts to then verify you noted that some of the data used for the durd papers did you you or others conduct any controlled experiments to verify any of the paper's proposed hypotheses or are these uh the results of just physics and mathematical deductive reasoning\par (1:11:41) well several the papers for example i'm thinking of mhd paper out of lockheed martin paper on [Music] capacitor energy storage and so on there are several papers in that group of 38 that are actually the results of years of laboratory experimentation and data collection and it's presented in those papers so the papers aren't all just you know wishlist kinds of edgy proposals several of the papers have a lot of experimental data involved so you'd have to go paper by paper but some of them are really quite\par (1:12:26) detailed have uh been published in the peer-reviewed literature have had replications in other laboratories that are referenced so it's uh it depends on the paper uh how of late it seems that there's a concentration of of cases right now that are coming forward uh made by on u.s military assets uh do you feel that this is the case or do you believe it's a matter of reporting or disclosure in some of those countries i mean what's the focus here why is that suddenly happening well i think that for whatever reason\par (1:13:07) the uap phenomena is highly correlated with and concentrating on military and military military-like and space and nuclear facilities why that's the case uh i don't know i'm not sure if anybody knows but definitely that it's it's not just uh selective reporting i mean that does seem to be the case and of course that's why there's such concern behind the scenes on what the significance of this really is in uh in 2021 balbrick and martier uh published in the journal classical of quantum and\par (1:13:54) journal classical and quantum gravity about the possibility of positive energy physical warp drives as a shell of regular or exotic material moving in inertially with a certain velocity therefore requiring propulsion requires propulsion of subliminal some limital spherical spherically symmetric warp drive space times do you think that this approach can be valuable well i think exploration of all of these approaches is valuable and and from the math and the theorizing outcome predictions and then those predictions if we have an\par (1:14:38) opportunity in the lab or an opportunity in seeing uap in the vicinity we might be able to check out whether those predictions are valid so i think all that kind of work is is certainly useful okay let's see uh have uh have these objects convincingly demonstrated any kind of telepathy or psychic uh activity in other words is there any connection to that uh i know that you were heavily involved with uh like the remote viewing type of thing and some other kinds of studies and stuff like that do you see that there's any\par (1:15:20) connection between the objects and anything of that nature well certainly there's a lot of reporting of people claiming those kinds of experiences where they have interacted with some kind of being and the interaction was telepathic so as far as i know it's not pinned down in the scientific sense that that all of us at scu would like would like to see but

nonetheless given that there's so much of that kind of reporting going on i and others have given thought to what kind of mechanisms would be involved\par

(1:16:06) and um you know we we've done some modeling and i'm pursuing some communication quantum communication technology that you know may have a relationship so i think it's a fruitful area to think about and to try to gather data on and but in terms of its relationship to uap phenomena it's uh it's still sketchy at least from a scientist's standpoint um just a question here that uh it's been plaguing me too is it it seems like all the the recent sightings and stuff like that have always been with the navy and it\par

(1:16:49) seems to be that they're taking the lead right now with the dni and everything else the united states air force is responsible for control of our skies why is it we don't see anything from them you know actually i know that that's a good question and um i actually don't know the answer i know that the navy has been you might say more active and uh pro investigation for a long time and certainly recently it's been the navy pilots that have had the the primary viewings as far as we know so i don't know whether that means the\par

(1:17:31) air force has some equivalent um and they're just not wanting to get on the public bandwagon about it or maybe for some reason with a lot of the uap coming and going from the ocean you know maybe it's more of a navy thing so uh i don't actually know the answer to that okay and we have like about one more minute and i'm just going to ask you this last question here do you believe that there are any current craft that uh have the properties of the tic tac objects and our human groups that can take e.t\par

(1:18:09) home i think that's referencing you know the referencing ben rich's statements yeah ben rich's statement i'm skeptical i mean i can't absolutely write it off but uh with whatever access i've had and of course everything is still very stove-piped so it could just be that i don't have the access but i haven't seen any evidence of that [Applause] watch more podcast clips now on our youtube channel go to livewire podcast clips and watch more great podcast videos just like this one [Music]\par

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Eric Weinstein & Michael Shermer: UFO DEBATE! - YouTube\par

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Transcript:\par

(00:00) [Music] we are going live we should be broadcasting to several thousand people out on the internet and all different places in all different locations in the known universe and it is a great great pleasure to have two of my friends actually the man who gave me my start in podcasting during pandemic podcasting dr michael shermer who has uh influenced me and set me up my initial interviews a year and a half ago almost when i started my pandemic podcast journey with his book giving the devil his due michael is a professor he's the\par (00:45) publisher of skeptic magazine he's a noted skeptic an avid cyclist an all-around all-around good guy and um i look i look forward to chatting more and learning from you professor shermer how are you today well uh well given the alternatives yes life is good and on my uh on my left on the screen at least is dr eric weinstein who is no stranger to the into the impossible podcast we have been together for many many uh decades it feels like but it's uh but it's been less than that and also coming up on our anniversary or our\par

(01:21) youtube first conversation this i think is our ninth one so uh so it's great to have you too as well dr weinstein how are you today um great to be here thanks for having me very interesting uh also to be with my friend michael shermer um i really am glad to uh have this crew assembled for this topic so uh what's so interesting to me is there's sort of this phrase in german the germans have the best words for everything michael knows that better than anybody i'm sure uh but uh but they have words for\par

(01:52) everything like ambulance the word for ambulance eric do you know what the word for ambulance is in german no i just know that exit is also fought yes i think the word for ambulance michael can confirm is crank wagon so you know if you're sick you get hit you go to the cranker wagon and uh but one of the other things they have is zeitgeist the spirit of the times and it seems like right now we're in an interesting age where people are kind of uh being affected by this notion that there may be extraterrestrial visitors\par

(02:21) it may be other factors contributing to a rash of sightings that have been popular in the news media and i thought we would kind of discuss it today in a friendly debate and and and really hash out some of the issues on the skeptic side as michael shermer eric is coming from a side i think of curiosity and of great interest in particular in some of the uh second order implications of these of these sightings if true and if not true so i think i think it's quite interesting that when you guys are both able to join\par

(02:52) me hang on here as a guy who never talked about ufos ever because i deeply detested the topic up until april of last year i think we have three skeptics and three open-minded people i don't want to put anyone yeah i agree i concur all right well i i can't really say that i concur them because look at this is one of my air tags that i got from apple and you can see the symbol on it maybe it'll focus it's a there it is i'm not a skeptic and don't forget brian you're you're the one that did the cover story\par

(03:25) of in the beginning you rewrote genesis so uh what does that say that's right so i was talking um about this uh for you know several weeks i've been having a lot of individuals on the podcast ranging from uh debunker famous debunker mick west who may be watching he sent me a question to ask of eric uh seth shawstak i've been on other podcasts my friend jeremy reese who runs alien scientist uh that podcast and kind of fleshing out the implications if true i've talked to the pilots involved in some of the encounters that have been in\par

(03:56) the message in the in the media but i want to ask you do you guys see something else some other reason why this particular moment this particular issue is uh so much in people's forebrains i'll start with eric why is this issue taken whole not not the alien or whatever you know you want to say but this issue as an issue itself why is it so important why is it so popular why is it so um such in demand for for people to discuss well i think it's been forced on us which many of us resent uh i think that the idea of um\par

(04:31) i don't even know how to put this but i've been able to avoid ufos sasquatch remote viewing uh esp my entire life with relative ease and when our government takes a position that makes it impossible to avoid that by hiding its data and making provocative statements involving a thermonuclear narrative you know the thermonuclear threat did not disappear with the cold war and it is fashionable to treat it as if it is a solved problem of our past when it will be a problem throughout any future we might hope to have\par

(05:15) i come with an unfun curmudgeonly get off my lawn perspective that you don't mess around with thermonuclear narratives and i think it's wonderful that you know the internet

generation uh feels so secure that we can have fun with giant bug-eyed aliens and you know skinwalker ranch and cattle mutilations but when you actually are talking about things probing your airspace or areas in which military presence is found you're talking about something that potentially could lead to a conflagration and so you know just the way i don't\par

(05:56) expect people to be you know singing popular songs in church i don't really enjoy narratives about ufos in military airspace so i think it's really important to recognize that we have now been taken by the new york times by the pentagon into a very weird place where our scientists don't seem to have any data there are a tiny number of videos all of which seem to me to be rather low quality there's some anecdotal reports and there's enough claimed behind the scenes to warrant a change indicating that we were either lying\par

(06:36) before lying now um but whatever it is we've been putting a tremendous amount of pressure on people not to report things apparently that they see because they don't want we don't want career ending behavior in pilots this is one of the few issues that i've never been able to fit any curve through the points normally the problem is you can fit too many curves through a set of points then you have to discriminate between which is a likely narrative and which is a less likely narrative i got nothing at the moment i don't know\par

(07:08) any story that i can tell um in which it makes sense what we're doing either we've become incompetent we've become bored uh we're being visited by something that would be the story of the millennium or we've been leapfrogged every single narrative uh goes to some place that makes i think what we're trying to fit is a sheet that is too small on a mattress that is too large and every time we get one corner of the fitted sheet onto the mattress another one pops off so i've never seen anything like this\par

(07:47) and it has beaten me in the sense that i don't have a story that i can tell michael when you look at this issue do you see you know other narratives besides the you know simplest occam's like explanation do you see other narratives media driven or you know popular um you know pop science driven what do you see as bringing this to the forefront of the of popular culture 60 minutes and every newspaper in america and baited breath and what do you attribute that to yeah so having some institutional memory here helps this something similar\par

(08:22) like to this happened in the early 1990s you know we founded skeptic magazine 92 and the roswell incident was all the rage and there was a lot of pressure on the government to issue a statement what really happened and uh all the way up to president clinton when you know when he was president said all right i will look into it and uh and then finally in 1995 the the government issued pentagon issued a report on roswell in which they said okay that stuff back in the 1950s when we said it was a weather balloon they're referring to this crash debris\par

(08:56) at mac brazil's ranch outside of roswell new mexico you can see pictures of it online it looks like balsa wood and tin foil and and so forth and they said okay it wasn't a weather balloon like we said it was this high altitude surveillance balloon listening for the acoustic signatures of uh nuclear explosions in the upper atmosphere because we thought that's what the soviets might have been doing so that's what crashed then they offered other details you know well what about the alien bodies that some people\par

(09:27) said that they saw and well those were some other experiments we were doing these high altitude balloon tests where we would heave a crash test dummy out of the balloon at 90

000 feet just to see what happens and so maybe the people saw the crash dummies uh being hauled away by the military that kind of thing so there was a lot of excitement and build up to this report like oh my god oh my god they're going to tell us what really happened and then when they told us none of the ufologists said oh okay now we're satisfied\par

(09:59) and uh we'll you know we'll go home and work on something else no no they just figured the government is still lying so whatever the report is going to be released later this month if at all uh it's i'm predicting it's not going to say but anything particularly uh revelatory about uh super advanced drones that the russians have or alien visitations or anything like that and ufologists will not be satisfied with it because you know short of them saying yes it's aliens and we have the bodies they're in area 51\par

(10:29) and we have a camera you can go live and see it yourself and they won't be satisfied so uh i think eric's got it perfectly uh said it perfectly well uh that it's being forced on us that is a commentary on the uh sort of the media landscape you know when the when the new york times you know the paper of record all the news that's sit fit the print you know the gray lady says ufos are real then of course everybody has to you know take notice but let's deconstruct that for a minute now this wasn't a a report\par

(11:05) in the new york times uh conducted an investigation conducted by new york times journalists that are you know go sent out by their bureau chief to look into something two of the three authors of that 2017 paper are ufologists leslie keane wrote a best-selling book called ufos uh you know pilots and and generals go on the record the second author blumenthal wrote a book on alien abductions it was a very positive uh report about um the whole uh 1980s and early 1990s alien abduction uh narratives that were recounted\par

(11:41) um you know in breathless tones of like you know it's here it's real it's true and so this is you know this is not a a dis interested report by investigative journalists it's it's an article by believers and so it's astonishing to me that people seem to miss that and and all the way up to last week or today you know real that word real is doing a lot of work in those headlines you know finally the government the pentagon says they're real they mean the videos the videos that have been passed around\par

(12:12) since 2007 and they keep getting released like oh there's new videos they're not new they're the same videos that get recycled over and over and finally the pentagon said okay look they're not fake they're real videos they were actually shot by navy jets they're not made by some um uh you know hacker in a in a basement with his laptop or cgi in some hollywood studio they're actual videos okay that's all it means but the problem is is that when people hear real their brains autocorrect to\par

(12:45) extraterrestrial the government has said aliens are real no that isn't what they said nobody is saying that right and that's the problem and eric's right this how can you ignore it yeah 60 minutes oh my god how can you ignore that all right well we're done here you guys are both in agreement this is a boring debate thank you all good night no i'm just great but one of the things that bothered me most and i think scientists are to blame and i think the military is to blame but most of all i think the media\par

(13:14) is to blame as i'll explain in a second the you know the topic comes up in the new york times in the recent headline pentagon you know or navy can't rule out this but they can't prove that either and you know this is like unfalsifiable hypotheses you know and with no discriminatory no sensitivity and then the other hand you have you have pilots like uh commander fravor and again i have you know less courage in my entire body than he has in

this little cuticle over here uh but isn't that part of the problem he\par

(13:42) says things like you can't you know criticize it because if you're not a fighter pilot if you don't know what a cap point is if you don't know what a thread vector is um or he says you don't know how to operate a fleer camera on one hand on the other hand we as scientists and we're all trained here at different uh different branches of science and or social science and the point being how do we how do we communicate to the public that no you don't have to be a pilot to uh to say something about\par

(14:08) uh about a phenomenon and the viability of something as a phenomenon a physicist can do that likewise you don't have to be a physicist to speculate on the existence of of perhaps sightings eyewitness testimony etc so you know michael i think it's i think it's a it's an interesting time and i keep asking who's benefiting from this when you have a headline that's like you know um you know unicorns could exist they can't be ruled out either you know my daughter you know likes to claim that there's an invisible unicorn\par

(14:38) and the proof is that he visits her room every night that there's no residue of their unicorn ever found or discovered when i go in a room so the absence of evidence as our friend carl sagan and my listeners will will hate me if i don't put up a sock puppet to that finger puppet but you know absence of evidence isn't necessarily evidence of absence but nevertheless we're in this narrative now where people are being asked to speculate on the nature of what scientific proof constitute you know is constituted by\par

(15:04) and and getting scientists to say things like well science never proves anything i mean it's very diff it's a very dangerous time to be in on the other hand i can't say anything because i didn't have the courage to put on the uniform so where do we go where do we where did we make an impasse past this impasse eric i'm slightly worried that we've mis-framed the problem that i think we've we've got the portion that we all agree on right and can we all agree that the videos to an untrained observer\par

(15:32) i think all three of us are untrained observers i mean i don't know if you could train for this but um don't seem very impressive is that is that a fair statement michael totally yeah yeah impressive they're weird they're weird but they're not like super high resolution with you know data at the infrared um you know optical thermal radar blah blah blah and okay so put that to one side the concern is that many of us are hearing a great deal more from other sources that are not usually i don't know unreliable people who i've\par

(16:18) known who i've tracked their history people are reaching out and the claim that i don't know how to evaluate is that there's a great deal more it's higher resolution it's actually data rather than sort of video anecdote it appears that none of our top scientists have access to this at an official level they may have secret access to it but i certainly can tell you that i've poked around in you know differential geometry general relativity and quantum field theory which would be three places i would want to to consult\par

(16:56) if i thought that i was being visited from another dimension another part of the galaxy or that there was a major breakthrough that allowed um alien civilizations to visit us easily or even our own future selves what have you and that's the data that really i find fascinating it's not it's not that look these videos you know to the extent that they're actually just straight up videos of something they certainly seem weird i'm not i'm not i'm not claiming that that it's nothing but i don't think i've\par

(17:25) ever said the words fravor or tic tac or nimitz or any of these things during the entire discussion which i've been relatively focused on not because um well because i don't think

that's where the story is i think that the story is the pentagon authenticating the existence of a program i'm i'm plugging in i'm seeing all of these papers um you know like 38 papers they seem to be from relatively obscure academics for the most part there seems to be a ufo community that has security clearances there seem to be\par

(18:05) top physicists who don't know nothing about this i mean i think brian and i surprised lee smolin who didn't even know that there was any change in the ufo narrative recently when we were on a live podcast with him and all of this i find to be the it is the data the data is the absolutely pathologically bizarre disconnect between what appears to be the strength of what has been released and authenticated with what is being claimed with the extent to which things are being hidden and the absence of any adults in the\par

(18:41) defense complex or the intelligence community to shut down what seems to be some sort of arguable fever dream on the part of people who desperately want to meet aliens now i would say i desperately want to meet aliens but not so desperately that i don't have other things to do on this planet if there are no aliens to be met and so my question is where's my goddamn data so michael to that extent when you have multiple reports from multiple pilots these are trained professionals great costs great sacrifice to our country\par

(19:15) um even if there's you know the type two error probability is small you know that might be a false negative it could be a false positive but you know don't we have an obligation to investigate all you know to protect our pilots uh at some level don't we have an obligation as eric says this is our data i mean you and i you know have a right to see what what's what data are being promulgated and by the way you put a lot of faith michael for a skeptic in the efficacy of our of our pentagon\par

(19:45) to and our military apparatus to be both transparent and accountable and i think the lessons of the last 15 months should have disabused all of us of that notion so what do you say about not to mention the not to mention the lessons of wiki wikileaks and all the way back to the pentagon papers 50 years ago this week uh well so one of the most revealing statements by the pilot one of the pilots on 60 minutes was that he sees these things every day and bill whittaker the journalist for 60 minutes says what every day he goes oh yeah every day\par

(20:18) like it's a common occurrence okay if that's true what else should be true what else should be true is we should have thousands of high resolution high definition clear photographs and videos of whatever these things are shot by passengers on commercial jetliners people sitting at the beach you know there's a hundred million or more uh you know uh cell phone smartphones with high resolution cameras on them you know we should have tons of videos and and yet as eric points out we have a handful of these grainy blurry\par

(20:51) videos i've been in the ufo business for 30 years they're all you know grainy blurry it's i'm almost beginning to think the aliens are just blurry that's just what they look like you know the ufos are blurry that's part of their stealth technology they're controlling us they're trolling us that way so and it's not to say that um you know pylons aren't trained and but they're not immune to the normal perceptual misperceptions that we all have misperceiving the size or speed of\par

(21:23) something at a distance when you're moving it's dark whatever you'll see these reports like one in um leslie keane's book on ufos uh of where you know you know the pilot uh gives this description you know the craft is 150 feet long and it's traveling 350 miles an hour how do you know i mean this is and there was no radar uh measurements of this this is just his

visual sight okay this is very difficult to to take seriously without some corroborating measurements now to your first point that the pilots\par

(21:56) are corroborating either each other or their visual reports with what was seen on radar on the ship or something okay that confirms what the pentagon said when they said they're real that is to say something out there is being filmed it's not just an artifact of inside the lens like a lens flare for example the history of ghosts and haunted houses is is fraught with lens flares okay just the the light is bouncing around inside the series of lenses in a 35 millimeter uh camera so it's not that it's obviously\par

(22:30) something else okay but but but what and you know to his credit you know mick west did the heavy lifting on this by you know kind of looking at each of those videos like the one you're showing now and looking at what those numbers around the edge of the frame mean you know i don't know what they mean and you know most of us looking at have no idea and you know mick looked it up well presumably someone in the pentagon or the navy or whoever knows exactly what every one of those numbers means why aren't they telling us\par

(22:59) okay it's not actually shooting off to the left at a high rate of speed the zoom is going from one to two this is one of the things that mick pointed out i think this is the one there where you see it says one and then if you go forward a little bit it it jumps to two so the image is is blowing up twice as is as big which means the object is going to move suddenly there it's about to go to the left and you know why is it that it's mick west has to figure this out for us why didn't the pentagon go out\par

(23:30) and go guys guys calm down this is nothing zooming off anywhere this is not anti-gravity technology this is not a chinese russian super secret drone it's the zoom on the camera all right presumably if they issue a report they would at least do what mick west has done for us yeah and i want to point out i did have been in contact with alex dietrich as lieutenant commander at lieutenant junior grade at the time of the incident uh and actually mick had her on their on her on his podcast yesterday i want to point that out that she's\par (24:03) incredibly gracious she has you know she's she's talked a lot about this and i think you know her recollections you know there are discrepancies between her and favor i don't think that's particularly germane to what her argument is you know she wants to make it less of of a taboo for pilots to come forward as do i i want our military men and women who are as i say a million times braver than i am to have the best equipment the best training and the best protection against threats uh like this but eric um i want\par

(24:31) to get go back to to your your take uh on this so when absent these videos you know in the new york times i feel that there is only one institution that stands to benefit you've done a lot with the gated institutional narrative promotion you coin those and i think in this case there's only one clear-cut winner and it is the media and the media have a vested interest in making the story persist as long as possible even in the old gray lady that prints all the news fit to print and we know how accurate they are they\par

(25:01) never make mistakes they never have any political agendas whatsoever right guys so my question is how can we be possibly being manipulated in some sense again uh by by media forces that jeff bezos owns the washington post uh has no profit motive necessarily anymore his infinite money can shovel into it has to do with space maybe it's interesting for his space missions who knows but the bottom line is you know these things in the washington post from the washington post to the new york times uh they go unquestioned or we don't report them 60\par

(25:32) minutes shows one side only and doesn't report the uh the the scientist perspective or a skeptic's perspective and they oh afterwards um 60 minutes overtime see what they said when they landed back on the carrier deck so how do you balance this against cui bono eric you know and and and again the nancy kerrigan question i always ask you why now why here why us well um okay so i'll play tanya harding to your nancy kerrigan i don't want to do that yet we're not at the cui bono question because almost\par

(26:11) certainly the media is going to be humiliated for taking this seriously if the strength of this is what is all that we're seeing i mean i really i don't i had an interaction with mick west the other day on twitter which if i had to describe it it was sort of like white to move in mate in five and the claim was the story is fantastically interesting no matter what it's a very branched decision tree much the way you'd have in a chess problem where lots of things can move but every single way of resolving the story resolves to\par

(26:47) something fascinating so so actually he has a question for you mick has a question for you that he um well let me let's not let mick drive the bus unless he wants to come on the show right now you can ask it to me later i don't i'm not afraid of it but i won't like to continue my my line of thinking mick effectively you can grant him all sorts of you know a rook a bishop a queen you know yes i i don't find these videos particularly compelling yes maybe pilots are starved for attention yes maybe some of it is bokeh\par

(27:20) and yes maybe the camera turning very quickly would have the illusion of something speeding off etc etc seat at all assume that in fact there is a group of escapees from marin county deep in wu who have taken over a pentagon narrative about military air space uh in order to amuse themselves and uh you know effectively this is a burning man camp uh gone out of control that's a huge story it's a really big deal and it doesn't really matter in some sense whether the former paper of record uh turned i don't know institution that isn't has\par

(28:02) inscrutable motives we all know that the new york times has slid downhill at an incredible level we're in a highly politicized era people are desperate for funding they're desperate for excitement they can't find meaning in their lives blah blah blah we are still a thermonuclear nation and we need bad narratives reigned in because we're we are not even in a bipolar situation we're in a multi-polar situation it is simply uh if if michael shermer's best explanation were true or if mick\par

(28:34) west's best explanation is true we've had a massive collapse if we are at the level in which we are talking about incentives that one part of the pentagon wants money that another part of the pentagon has or people are squabbling and there's no one to lower the boom and say cut it out this is an extremely serious situation what it's what it means to be in the military you guys don't get it we can't afford this i just i don't think that any of this really resolves the basic puzzle we have we've\par

(29:04) been starved for the data there appear to be i i just checked today with a friend of mine who i believe is uh luella zondo's attorney dan sheehan who i've been following since the iran contra um you know scandal we did the pentagon papers uh a storied famous attorney um i checked with many things that he wished to say i said that i would keep them all in confidence he said i didn't have to keep them in conference by the way michael you you should know that you are the of the three of us most likely to be an alien because you seem\par

(29:39) blurry to my uh to my weight right it's coming from the past michael's calling from people are saying how do you still have those aol compact discs but don't be cruel to those of

us over 50. um the thing i'm i'm just shocked by is is that we can't actually have a conversation we keep getting distracted because we don't have the language that says you have to you have to integrate over the entire decision tree you nobody can say that it's aliens and what was represented to me just and i\par

(30:15) checked before i came on the podcast is that in essence all what was represented is that all plausible explanations um appear to have been ruled out that's a claim i'm not saying it's true i'm saying that it's a claim there's also a claim that there's a vast amount more data and it is much higher quality that it hasn't been down down sampled it hasn't been degraded so as to preserve um you know military secrets i don't know how to evaluate it because i'm not saying i'm not being lied to i'm not\par

(30:51) saying that people are not themselves confused what i am saying is that people are not representing the problem correctly and if you set up the problem in any one of various ways i can set it up so that either absolutely this is a funding dispute that got out of control where people were trying to have some fun and uh you know and it became this international story or i can set it up in a different way in which basically we know it's aliens and we just can't say that the final words and what i asked dan sheehan today was\par

(31:26) are we at the point in your opinion or in the opinion of people who came out of the pentagon's atip program that the only the is the explanation for why no one will say it's aliens that all of the remaining branches of the decision tree that we can think of have career-ending pos uh implications and i thought that that was a pretty good way of grouping the set of things like you know it's atlantis or orcas developed opposable fins or were being visited from other dimensions or these are future humans going back in\par

(32:01) time along closed time like curves or any one of the things that would sort of get get you a trip to the nuttury are those what's left and the answer came back to me and i and i hoped in if i i think i i got this straight so uh i will apologize if i didn't understand it the dan's answer was yes that's what's left now does that mean that dan knows dan wasn't part of atip he's a lawyer does that mean that atip understands this maybe not maybe they're a bunch of crazy enthusiasts i don't really understand\par

(32:39) what a ufology i just found out that ufology is a word that's how backwards i am on this topic um no no i am late as late can be to this party this has had zero interest to me i think we are not representing the weirdness of the story accurately if we're already at quibona but if we isolated just to the pentagon i mean you could think of many different internecine type squabbles from military fighter jet competitions to inter-agency squabbles like the space force air force now these are all navy pilots and one narrative i've heard\par

(33:16) is this is you know kind of par for the course and navy's has the last gasps that attempting to get the high frontier under its control before space force and the air force kick in this is typically the purview of air force uh these are space space activities if indeed that's the case what is typically the purview of the air force uh activities and external to our planet if indeed these are ufos and so forth coming from other other advanced technological civilizations maybe i'm i'm just missing it but i'm\par

(33:45) being reached out to by various people i have contacts that i didn't cultivate for this purpose i've tried to check in on what i am hearing and again what i am hearing is not data and that's just hearsay does not strike me as having any analog in my previous life i've never seen my the closest i've ever seen been to a ufo sighting is in 1988 i was lying on a pier with my now wife then girlfriend looking up at the stars on lake waban and there was a light in the

sky that appeared to be a satellite\par

(34:25) of the space station i pointed it out it had a beautiful very clean arc as if it was in orbit and then it reversed and it was it appeared to be a very point like source very very distant i didn't understand how something like that could do it could could do that move i couldn't figure it out but i haven't spent 30 years obsessed with the point of light that i couldn't figure out why it did the thing that it did it was just like anomalously weird and you know look i've been known to tipple occasionally and\par

(35:00) you know look hey she was she was good looking so you know maybe maybe i was just moved by the moment um but i really i don't have this part of my soul unquenched i don't need ufos to have a meaningful existence i don't think we're listening i think that what we're being told repeatedly from multiple sources is that these are daily occurrences in many cases there are two basic loci that seem to crop up over and over again off the east coast i guess around virginia north carolina and some locus of activity off the coast of\par

(35:38) southern california um i guess there's a few mexican islands in baja and san diego and i'm not quite sure why we're having trouble saying that the data is weirdly the withheld claims that appear to be fairly consistent from very different people and the otherwise inexplicable behavior of people who respond when queried um in a profound way i i've just never encountered this before but you're computing you know potentially impugning you know or pointing to a monumental security you know vulnerability in our pentagon\par

(36:22) at the highest level you know as michael said there are people i think he's even a friend of ours who's or at least twitter friends as close as i can get to a real friend these days uh and and that is you know people who are reporting daily incident sightings so that is a falsifiable hypothesis so fly out there oh it wasn't there today okay we'll come back tomorrow it wasn't there tomorrow we're reporting very different things the tic tac is unique it's suey generous there's nothing like it then there are\par

(36:46) other things balls and spheres and sphere or spheres and boxes and and so forth what's that i heard a new one over the mediterranean from the same source about we were going at incredible speeds in our fighters and suddenly and you know i had to make sure that i was parsing the sentence accuracy somebody said that circles were being flown around are fighters at very high speed and i said you mean that something appeared to be flying much better because the colloquy you know to run circles around means uh you know to do much better than\par

(37:20) i said no literally uh this is what was occurring now i keep trying to push on all of this stuff and it doesn't resolve one way or the other so in general my feeling about this is that this is an invitation for the scientific and the skeptical communities to destroy themselves by not setting the problem up and not saying give us the damn data because we don't know what we're talking about the major data we have right now is withheld uh is a narrative involving withheld information that is the data and you know i just i don't understand\par

(38:04) the passion for david fravor the tic tac the nimitz the the the the pyramids you know is it bokeh is it this is uh this this should leave us cold the key issue are the consistent widespread allegations without the condemnation of the pentagon that this is an irresponsible narrative dangerous to the security of the nation that provides the world's responsible use of force michael what do you make of eric's claims you know the meta issue here that has to be addressed is what does this say even if it's\par

(38:42) not true as he's stipulating let's say all these are fake but then you're getting these

reports what is this saying about the the you know our integrity of our of the of the high command of the of the agencies that are sworn and put on the uniform and as alex says you know raises her right hand to protect us are they often you know off the ranch here or you know is that something is it basically you know eric is imputing you know perhaps malice i think more incompetence and i'd like to get your\par

(39:09) take on it yeah well a couple of things first of all we uh it is good to remember that the branches of the military do compete with one another for funding uh and uh you know budgets and so forth i've been i've been reading quite a few books on um the arms race during the cold war the cuban missile crisis the history of the bomb and so on and you know a couple things that came clear in fred kaplan's book the bomb and martin sherwin's book uh the on apocalypse let's see it's called uh gambling with armageddon on the um\par

(39:46) missile crisis is that the the real arms race was not between the u.s and the ussr it was between the army navy and air force and each of them wanted uh the bomb because they could get more funding and this is why we have a triad we have a triad because the navy said well we want a bomb so we got to put in our submarines and the air force said well we want a bomb so we have them in our bombers and the army said well we want a bomb so we have missiles that's why we have a triad so basically it tripled the overall military budget just on that\par

(40:15) alone and uh you know it's staggering that that was far more competitive than that we were competing against the russians there never was a missile gap when kennedy ran against nixon uh while eisenhower was finishing up his term there was this whole thing about the missile gap between us and the in the soviet union it it that that never existed that was only in the minds of you know politicians and so that's a concern so whatever it is we're talking about here we should keep in mind that the for the\par

(40:44) forces do compete with one another for claims on things that are going on especially as it affects their budgets um i i um in terms of why this interest well how could you not be interested if it was true that we're being visited by aliens of course that would be the discovery of the century if not of all time and uh and so let's put that off on one side and then say well what's the other hypothesis they're super advanced russian or chinese assets but somehow that they've gotten decades or centuries ahead of us technologically\par

(41:21) and without us knowing you know i make the case in that quilette article i did that this is just not how history of science and technology evolves you know it's very incremental everybody knows what everybody else is doing they all scientists and technologists read each other's journals uh nations steal each other's secrets and so on and so forth the manhattan project the most secret project of all time in our country uh the russians had all everything we knew within four years they stole it and you know apple and all these uh tech\par

(41:51) companies you know they have super secure uh systems and and uh protect their property rights through lawsuits and so on and yet all cell phones and computers are roughly within six months of each other in terms of development so the chances that whatever we're looking at are super advanced chinese or russian assets that we just just don't know about is is pretty slim so what does that leave us with two things one it's the kind of things that mick west is talking about you know camera motion uh distance uh distortions the movement\par

(42:23) of the cameras and zooms and things like this or anomalies we just can't explain and you know so this is called the residue problem there's always a residue of unexplained anomalies that no current scientific theory can account for 100 of observations so what do

you do with that well i don't know we just live with it or we wait for the pentagon somebody knows i i think in my opinion somebody knows and they're just you know why they're not telling us i don't know mike michael let me just ask\par

(42:55) you a question you and i had a friendly skeptic on skeptic knife fight on twitter and oh yeah that's right right and my claim was that's not how innovation works innovation works sometimes you have an incremental aspect to what has been learned or understood but it may unlock what appears to be discontinuous power and so you know i put the problem with you that um you've proven that renaissance technologies on long island doesn't exist because we have a secretive hedge fund that has maintained an advantage over every other\par

(43:34) investment system known to man that cannot be easily related you know if the idea is that it's not actually a hedge fund uh i think that's a fascinating idea we know that there are um you know i gave the example of uh herod sato in table tennis who was the one who figured out that if you put uh rubber on both sides of a sandpaper bat um it muffled the sound and he was able to be the worst player on the japanese team who won the entire world the table thomas champ championship in bombay bob beeman's long jump\par

(44:10) he did something on that one particular jump that produced an outcome that wasn't a few millimeters difference but you know just an unimaginable flop right well that was the same olympics in mexico city and i i don't need to tell you that eddie van halen and jimi hendrix both represented a complete discontinuity in both cases people got a chance to understand what they were doing but generally speaking i would say that nobody's really figured out what generates the majesty of jimi hendrix i don't\par

(44:42) think that what you're saying is accurate not because the input may not move incrementally for the most part but that the consequence of getting something a little bit better may be an enormous difference and so i asked if i recall correctly you were citing matt ridley how many years difference is 1900 or 1902 from 1952.\par

(45:09) in one case you don't even have powered flight in the other case you're dropping fusion devices you know about neutrons and antimatter relativity quantum theory we're in a situation in which if you think about the early 20th century i i noted that my friend and our mutual friend sam harris made the same thing the same claim about tens of thousands if not you know hundreds of thousands or millions of years in the future um no you can't tell how much more advanced the civilization is in that metric because the amount of power that's unlocked need\par

(45:47) not be consonant with the discovery that unlocked it but i think you're you're missing one of the points michael was making in that tweet was that innovation the fosberry flop it wasn't like people stopped you know didn't adopt it everybody adopted it really quickly efficient market thesis applied to technology and michael's talking primarily about about let me just finish the thought michael's talking primarily about it not being an adversary on earth because in that case you know they would be likely look the\par

(46:14) chinese have yet the russians have let we beat them to the moon they have yet to send a man mission to crude mission to the moon right so if you look at it he's saying innovation-wise not speculating about the physics of the 25th century visited upon us by some distant galaxy like we would all be quite thrilled to uh to witness but he's saying it ruling out the adversary let's take this as a bayesian problem so what kind of credence can you put on eyewitness testimony it carries some evidence michael was abducted at one\par
(46:41) point on his race across america he can talk about that uh 1992 i believe he's he's

actually been abducted uh so we can we can talk about it so eyewitnesses uh we can put some bayesian uh prior on that we can put on technology so advanced they can get here but not advanced enough that it can't evade uh ages two radar uh et cetera and then you could go through the list and how you could maneuver in the earth's atmosphere and why you'd want to go to a warning area off the coast of southern california but\par

(47:06) not be spotted you know over over the white house anyway you could go through this whole list of things that we could try to pre-game and dunk and experiment until the until the proverbial cows get mutilated no i hope no cows would get mutilated by any of these aliens but the point i'm trying to make is the the question if it's if it's a physics problem you and i could talk about it if it's a sociological problem you and michael can talk about it but if it's a pentagon problem if it's a data\par

(47:31) problem you keep saying this is our data this is our data you know we own nasa has has as a hubble space telescope right so i can show you data now the hubble space telescope's data i'll put it up on my screen right here it's beautiful well that's not the data i want to show i want to show my firefly there we go what up there it is okay so there's the hubble deep field is this data as a scientist is this data it's very weak data but you actually have access to it you can get you can you don't need a foia to\par

(47:58) get this data actually it's not a very weak data it was it was it was constructed for a very particular purpose and actually the data relative to that particular purpose is fairly compelling no actually there's far more data there's far more actual data that we astronomers use from the individual spectrum of the individual luminosity the photometry the the aperture we can do a lot more with this data than just look at it on screen savers we're talking past each other the reason for collecting that as data i mean you and i agree i\par (48:27) think as to what what you're saying but it's the framing of it we had this question if we look if we tried to find the blankest part of the blank sky what would we find if we left the lens open for a very long time for a long exposure we were somewhat surprised that relative to that question this is actually very interesting data to for a smattering of a different questions it's very very cute that's right it's very weak data but you know when i tried to make the point that renaissance technologies\par

(49:02) is a different paradigm because it hasn't been copied it hasn't defused um that's a different issue than the fosberry flop replacing the scissors you know that was the previous high bar maneuver and so in that situation uh there was radically quick adoption i mean i find it very interesting for example that um nobody has bothered to uh just to ask the question why do ashkenazi jews over perform in physics why do two countries uh overperform in the boston marathon i think it was before was it 1967 and nobody from kenya or\par

(49:45) ethiopia had ever won and then those two nations completely dominated the results so you can say well that's the ability to diffuse heat uh you know there's been a competing explanations there are different things that go against michael's um broad claims based on the assertions of matt ridley and michael is a very reasonable guy we've talked for a long time we're not trying to get each other we're just trying to say so eric let me addre let me address that because it's a good point let's let's say the\par

(50:19) chinese have a a lab let's say it's in wuhan and it's next to that viral lab and and they're not only inventing viruses they're also inventing uh you know super fast technology that allows a jet to go faster than uh this the speed of sound without making a uh a sonic boom something yeah yeah yeah for sure okay that that's possible that you know somehow our

scientists missed that their scientists are not publishing in the journals that our scientists would read to see the incremental improvements\par

(50:53) because they've been kept isolated by their government something like that um if that were true then of course i don't think the pentagon is going to tell us this when they release this report you know oh boy we up you know the chinese got way ahead of us uh in this one you know fell swoop in the last five years and so now we're going to copy their technology and we promise we'll catch up we just won't hear about it um so your hypothesis is possible but i don't know how we can test it because\par

(51:20) again that data is you know they're not going to share that with us and um and so that would be the only way i could see that that's possible because the diffusion would happen pretty quickly after that if that were the case it reminds me of the scene in the movie uh airplane uh where they're trying to help land this jet this is should we turn on the runway light and they say no that's just what they'll be expecting so we're gonna starve our own scientists of the data that would be necessary to keep pace with china right\par

(51:49) what i'm trying to get is very different none of these simplistic explanations work right you can't get rid of it by saying that there are no secrets you can't really get rid of it saying that there are no permanent advantages you can't get rid of it by saying that all progress is incremental every time somebody's asserted that i think i've tried to be relatively diligent and saying no here's a here's a counter example here's a counter example now if you said it's rare i'd appreciate\par

(52:14) that it's not that usual it's somebody to something wholly discontinuous that can't be copied etc etc i don't think that's where we are and i think that it just it's very frustrating because i i look at the number of permanent clusters there's a cluster out here of people who believe that china in particular has zoomed ahead of us in hypersonic technology and that this is a closely guarded secret and that's the explanation there's another group of people who believe that we the us have lodged\par

(52:47) secret knowledge inside of our aerospace companies maybe the glenn martin company in particular who knows where the secret knowledge is all about technology it's not about physics they're working with the same physics as everybody else there's a different group right which claims this is a funding thing it's a psyop it's the psyop i've i've talked to each of these communities none of these communities can answer all of the questions that's my point and and the problem that i answer all\par

(53:15) the questions though eric is it necessary to prove every rule out every possible explanation for ufo sighting by mick west or does he just need one no no that's i don't know why this is so confusing we have i would expect almost all of us would go through all of the explanations and say i've noticed that every time i get these three corners on the mattress the fourth corner doesn't get anywhere close and the mattress is bowed in this really unnatural shape at some point you say i think i have a twin size\par

(53:49) fitted sheet for a queen size mattress and that's what i'm trying to say i'm trying to say that i have a category which i can't explain which is none of this makes any effing sense and the skeptics don't make sense the bug you know the the wild-eyed dreamers don't make sense every single thing i can run through this doesn't add up and what i keep hearing is can't i get back to one of the positions that i i feel like you know it's propaganda it's fighting it's infighting\par

(54:21) it's people who don't understand the difference between anecdote it's social pressure

that pilots pressure each other we've got a mystery and that's where we are i mean one so i have to because i said i would um our mutual friend mick west he asks you a question suppose that robert bigelow's a tip style wu had started to seriously overlap real issues like drone airspace incursions and human equipment identification limitations in other words the atip had exposed some weakness that's vulnerable and real\par

(54:55) how long uh could how could the pentagon shut that down before the report is released in other words do they do they have this i mean are you are you really you know overestimating how good the pentagon is how monolithic they are or are you more worried about them having the keys to the to the cadillac at you know at age 14 and doing something extremely dangerous potentially with it if i were the pentagon one thing i would do is i would come and talk to me and people like me very quickly and say you're on team america right i'd say\par

(55:28) you got it you got a big audience yeah i guess i do you're smart guy you've got a degree i don't know the latter is true we need to talk to you we need you to understand that there's some real sensitivities and we need your help we need to get this that we need to get the toothpaste back in the tube we need to get the genie back in the bottle because we've got real problems and we've got a woo narrative intersecting with a crazy narrative this is where i got to with with mick before which is isn't that a huge story now is\par

(55:57) that a story that i would be willing to keep quiet let me be entirely honest i would keep that story quiet if the issue is that we had a really serious threat we had a really garbagey narrative yeah the pentagon were to reach out to me i'm on team america and i know what to do if you don't reach out to me i'm going to behave like every single scientist i'm going to try to set up the problem try to figure out what i know what i don't know what i believe what seems anomalous and my claim is that i hear silence\par

(56:31) but i've reached out to by one or two groups i'm not going to say more if what you're saying is that we have a an overlapping problem of real drones and fake aliens somebody has blown it in our national science and our national intelligence complex and they've got to get their act together it's a big deal why do you have more faith in their ability to craft a media narrative when we know the uh the plethora of failures in their own purview in their belly with the f-35 lightning trillions of dollars a project that is\par

(57:10) still by all accounts completely inadequate for the pilots that fly it putting potential of our brave men and women at risk that's their job that's their day job in other words if you ask me brian you know why aren't you good at crafting this narrative of the media when you go out that's not my job i'm a professor of astrophysics at uc san diego you're you're faulting them are you using that as sort of evidence that that that the trains off the tracks at the pentagon when in reality they're not\par

(57:37) even good at some of the things that they've done in terms of monitoring threats how about this eric we had a threat that they knew about in 20 and 20 19 20 20 and all i can hear about is oh it's great the chinese can build a hospital in nine days haha look at them we should have known at that point i was buying stuff on amazon you know when i started to hear that because i was like that's unusual why are they building a hospital yeah they're awful human you know treatment of human beings welding them in or doing whatever they\par

(58:03) were reputed to do but we have trillions of dollars in the nsa and the pentagon the dod why didn't we catch that how come how come you're not more concerned about that what do you mean i mean i just put myself at risk as a noted xenophobe and racist for claiming that a

wet market that does not appear to sell bats is an unlikely source and that the wuhan institute of virology before john stewart decided that the rest of us could say what was obviously true i'm very tired of these people and at some point and i don't mean to be\par (58:38) rude uh you have to ask people with an above 80 iq for help and if you're not willing to do that then we are not in possession of we don't i i don't understand something i i don't mean to be rude about it but we developed the world's best factory for producing smart people out of ordinary human beings and i know those people those are my friends they're your friends and we've got a large number of them and they're completely in the dark they are so far as i can tell unless they've all been taken\par

(59:12) to um you know method acting school and each one of them can put dustin hoffman to shame nobody bothered to wake the scientific community the idea of saying we're going to have a manhattan project by getting middle school teachers together in in the desert um and make president powerpoint presentations to each other is not what you do you'd go call the institute for advanced study first and foremost there were like five guys if i were just to go one place i'd go pick up and and brian you and i thought about this before i'd pick up ed\par (59:50) whitt and robert dycraft nema arcane hamed juan mao de santa and natty cyber just be before breaking a sweat i call up jim simons and ask uh for his help i would make sure that i was talking to people who are have domain expertise with respect to general relativity particle theory differential geometry every time we get into this conversation i hear about material science and i say i really don't care that much you know at some level if it's just a change in technology if somebody figured out hypersonic technology fine i get it\par

(1:00:26) but this has become completely crazy the idea that we avoid smart people at all costs we make sure that there are no smart people on our coveted narrative there are no smart people in our physics narratives there are no smart people in our threats this yes i i understand i'm stepping into the following bear trap eric you sound elitist no kidding look at the prosperity all around you if you happen to live in an advanced country you're welcome now get the data to the smart people and stop effing around maybe they are just to be you know\par

(1:01:02) devil's advocate as michael's written about and his book giving devils do behind me there uh just a reminder around michael shermer he has a wonderful channel on this very uh channel which will hopefully not get banned or taken down anytime soon uh and that is called skeptic so at skeptic and eric weinstein has a channel as well i put that in the show notes as well as the proprietor of the portal podcast with the pros of t and the popping and i've got my good sr uh 71 blackbird filter on top of my ssl 2 microphone uh i'm brian\par

(1:01:35) keating chancellor's distinguished professor of physics at uc san diego and the proprietor of the into the impossible podcast but eric perhaps as a devil's advocacy method uh perhaps the pentagon and these uh and our rulers they do know that this is actually nothing to waste the time and you remember you know paul of the mathematician erdos who was forced by his colleagues and students to get off methamphetamines for some period of time for a month in the 1950s i believe it was and at the end of the month he came to\par

(1:02:07) his colleagues in the student's door and he said congratulations you've set back mathematics exactly one month now i'm wondering what if they know this what if they know that there's nothing there's no there there there's no there there and then why waste edwin's time your your friend with the same initials although there's only one ew that i care about there are multiple ew's we care about edwin's an amazing person who i don't think it was a

very good steward of the physics enterprise it's not the\par

(1:02:33) issue the issue is i mean i i don't know you have to appreciate every day i get up i look at the world the world is so far shifted from what i expect i write about it on twitter i used to do podcasts i will do them again the reason people listen to me is that i'm perpetually just scratching my head and saying what did somebody let off a neutron stupid bomb all over the all over the world now we're having the craziest discussions about narratives that make absolutely no sense we either have a significant threat or\par

(1:03:02) we don't if you have a significant threat you hire the people you train the people you go talk to them in the 1950s for example we appeared to have two separate programs that were dealing with anti-gravity and uh involving uh two separate philanthropists one of them worked through an aerospace company in a military air force base the other one worked for the university system i believe that the higgs mechanism bizarrely came out of all of this stuff you know we have dabbled in this before i looked through the list of names on\par

(1:03:36) this 38 papers of atip i don't know that atip is the only thing that's been tasked with you know understanding this we are not behaving as an advanced technological society facing a genuine mystery with military and safety implications and i will you know you will see people writing things like wow eric goes on at great length he says the same thing um you know paul erdich wasn't that important of a mathematician he was very good but he was like a combinatorist he wasn't you're not talking about alexander\par

(1:04:10) growth and deep you're not talking about michael latia or ed whitton i'm saying that we have people who would i believe in general if we have real data would go through this like the night out like a knife through butter now somebody in the comments said something about has eric never heard of the jason's well one how badly degraded are the jasons uh if you know that this is supposed to be our super elite um advising group i believe we tried to shut them down because we can't figure out why we still train\par

(1:04:40) smart people we are behaving like lunatics who built the society that was able to build the blackbird to build the bombs to do all of the amazing things that we do our chip factories nobody in the private sector would put up with this kind of avoidance of scrutiny and one of the reasons that it was is least likely to be aliens as least likely to be anything really exciting is is that no one's scared enough to make a trip to cambridge massachusetts berkeley california princeton new jersey hyde park illinois i don't know\par

(1:05:23) i i just don't know how to think about people who avoid smart people and continually have discussions about nothing i mean look at these papers this is not what we're supposed to be doing okay devil's advocate back to what michael said earlier which is you could have made the same argument back in 1949 michael richard feynman needs to know about this this uh this strange material this this uh found crass how come we're not talking to richard feynman michael we were talking to richard feynman about uf\par

(1:05:53) uaps sorry when richard feynman tells the amusing story about getting off in north carolina at the airport and he doesn't know which university to go to and he says to the cab driver you know the genius richard feynman says were people going to any university saying gmu knew and they said oh yeah that's unc chapel hill well that was baird institute right something like the institute for the study of physical fields uh extended a position to bryce dewitt his wife cecile moritz dewitt uh that was about antigravity and and you know it just it\par

(1:06:30) bothers me that nobody has david kaiser onto their program to know the history of

this stuff he was on this program talking just about that and and he can look for a link to it why do you think i come on this program i mean brian you're doing stuff that nobody else is doing but what i'm trying to say is i call up mit and i call up david kaiser and i say look here's the history that i know you know we're not talking to people i deal with colleagues who believe that peer review is is an intrinsic part of science which is\par

(1:07:01) clearly not true the brainwashing of our scientific institutions the the fact that we don't know the history of the golden age of general relativity that we don't understand the way in which antigravity intersected the way that we don't understand that we distributed programs in the interstitial regions between non-profits like universities government agencies like units of the military and private corporations like our aerospace corporations we used to know how things got done and then we passed the mansfield\par

(1:07:33) amendment in the late 1960s early 1970s to put the kibosh on military funding of civilian research and we went completely insane i mean i understand their motivation for not wanting the military to be directing civilian research during the vietnam war but when you knock out a load-bearing wall you are responsible for putting some support in its place before the destruction is complete michael if you're in char sorry uh by michael if you're in charge of the the audience is clamoring to hear from michael make sure that he's still\par

(1:08:03) there or if he's frozen in 1990 i'm still here on his aol 56k modem dial michael we love you um michael you're in charge of the pentagon you've got access to you know kamala harris our lead no no joe biden and uh you're able to do whatever what do you think is warranted at this point what do you think is warranted uh to to kind of address these legitimate concerns of eric on one hand of the pilots uh alex and dietrich heroes um uh of the others um who are making claims and of earnest individuals many\par

(1:08:34) of whom are listening and watching a thousand two hundred people listening on watching online right now i mean what would you do what to what level do we apply resources yeah go ahead yeah so you know of course if i you know transported myself into the pentagon and i would just release everything but that's because i'm on the outside and i don't know what i don't know that's on the inside and so it's like my one of my concessions to conspiracy theories that are true is that when you get elected president\par

(1:09:03) or whatever and you go and you see the inside and you go oh that's why we didn't pull the troops out of iraq or that's why we didn't close gitmo or that's why we can't close that base in germany here or whatever because you know i don't know what they know and so while it's easy for us on the outside to say yeah just release the information i mean come on uh there could be reasons why they don't i mean we didn't know about the stealth bomber for you know probably 20 years from the time\par

(1:09:30) they were building it a really revelatory book i read was um kelly's book on on the uh burbank located um the skunk works where they designed the u2 spy plane all that was going on right here in los angeles i mean people are driving by on the 134 freeway and here's these spy planes being designed nobody knew about it so it's possible that you know it's something like that on the other hand it could be nothing and and and uh it could be something like we're all in the middle of a like a psych experiment\par

(1:10:05) one of these illusions with degraded information you know like backward masking of playing rock songs backwards to see what different people hear or that remember a couple years ago that dress that was golden and white no it was blue and black and you know people looking at degraded information or hearing degraded information you know there's this

pattern illusory i call it patternicity where we tend to find patterns in that when you can't quite tell what's going on and this is my sense about these\par

(1:10:33) videos and photographs is they're degraded just enough we can't quite make it out you have people like mick west you know crunching the numbers could be this here's some trigonometry could be that okay somebody in the pentagon knows exactly what the videos mean why aren't they telling us this is the question and i don't know you know again of course i if i if i went in there i would release it all but maybe if i went in there i'd go oh okay now i see why we can't agree with what's going on i think it\par

(1:11:04) sounds like we're in agreement like i'm not saying we should release all data i'm saying that you should either release the data or you should get the smart people uh in one place as we have done in the past to say look we got a problem uh we've got a blue on blue situation our ufo enthusiasts have stumbled on our top secret drone program or uh on the knowledge that we've been leapfrogged by our adversaries or something like this but you don't just like not worry about it and and why does why is mick west\par

(1:11:44) anywhere in the story like the debunking because he's though because he's the one that's offered some actual hard arguments for what the numbers mean on the screen and what this is probably as an alternative to the other two hypotheses why did mick west ever make west has got other things to do why is he being put to this task when presumably the experts who run these uh these cameras and these planes should be doing i mean it's exactly what you said they should and by the way you know what you just said though is is\par

(1:12:16) that the history of the stealth bomber is a counter example to the idea that all information leaks instantly you know in some sense is is that if well no my point there was that it didn't uh okay so this would be a counter argument to what i usually say is the skunk works the skunk work was operating for decades where you know those of us in the public had no idea what was going on so it is possible for secrets to be kept at least for a while yeah but in free societies of course is much harder i mean the soviets had a\par

(1:12:47) replica of the space shuttle called the baron identical in every way to one of our you know highest performing vehicles ever invented ever created because we're an open society which puts us at an informational disadvantage i want to talk more about science and scientists you guys are are some of my favorite you know deep thinkers about science we're living in an unscientific age but getting back to this uh this notion that i talked about earlier where on the cover of the new york times you know pentagon says it's not ufo\par

(1:13:14) it's not aliens but doesn't can't rule it out either um how do we talk to people eric you made this point you know the risk of typing right you didn't do that it was two different headlines two different one vision of the other yes and and and they use their favorite technique where they say something that's defensible to indicate something that they really wish to convey to the public so i think newsdiffs.\par

(1:13:42) org still exists let's be very careful because every time the new york times plays that particular game it's important to catch them at it and not pretend that we're just reading a newspaper trying to inform us right so that's why i want to get to this core issue of the media and who benefits uh it's clear i don't think either one of either one of you can refute the fact that the media is benefiting they have almost nothing to lose from performing both sides of the story not featuring you know skeptics on a 60\par

(1:14:07) minutes show not featuring you know a counter narrative in the new york times article uh but but how do we uh science-minded people how do we you know take this burden

upon us do we have to educate the peop the population on what type one errors are type two errors are so that they'll answer eric's legitimate question michael you know if the risk is small but the cons you know the probability is low but the the impact factor of not picking up the phone and calling eric and i'll give out his phone number let\par

(1:14:36) me just no no but uh but if the if the risk is incredibly high even if the chances are low why aren't they calling him so that's a legitimate thing that's type one versus type two do we have to educate the public and fight the battles and uncover what these things are where do you come down on that well yeah what's up i should i should point out a book that just came out may 3rd it's called the gray lady winked how the new york times is misreporting distortions and fabrications radically alter\par

(1:15:06) history i haven't read the book yet i want to get the author on the podcast uh um you know he reaches back to the first world war the second world war and how you know the media is just not as unbiased as we'd like them to be including you know all the news that's fit to print so yeah it's um i don't know it's frustrating you know when i hear stories like on this particular topic and i can see the mistakes that are made in the media that are so simple that they didn't have to make it\par

(1:15:36) makes me wonder when i hear a story about israel and palestine or russia and civil rights violations in china or something else i know next to nothing about i can't help but wonder well what kind of am i getting when i know they were wrong over here on a simple subject like that or just take the wuhan you know uh viral clinic and all that's so much worse right i mean with with eric's pointed out and with his brother as well but you know really they've been on the front lines of all this and now we're\par

(1:16:06) seeing for the first time in history zero profit motive instantaneous ability to disconnect huge audiences you know from from people who are legitimate scientists trained individuals and and basically u.s senators i mean whether you agree with johnson or not he's a u.s senator it's very unusual to think about this taking away a former president's ability to communicate using some now we're in this new era where misinformation disinformation even if it is incorrect information how can you that can you check how can you\par

(1:16:37) cross-check and i just find it to be very dangerous and i'm wondering what can we do about it uh as scientists or people who care about this country and and want to benefit the public as i say i'm a public employee i work for the state of california at university of california and i view it as my obligation to give moral obligation to teach to the public in words they can understand but at what level do they do we you know really hold the people accountable that may be throttling accounts information followers videos etc so i mean eric what\par

(1:17:08) do you what do you think is is the less likely thing to happen is it cancellation of this information redaction where are we going from here well we don't know i mean i have to admit to be blunt about it that if we find out that this was a that there was really very little here at all which is still i guess possible because the the real data is i don't know how they created this uh this sort of haystack of nonsense at this to hide a needle of of something um it's a very weird thing to call up sam harris and have him say well it's\par

(1:17:46) probably not aliens i mean you know we have michael shermer here and i don't love the whole skeptic sort of vibe because i think that these people uh the best of us and i'm really glad to have michael on this program um are somewhat open but you know recognize that it's very unlikely to be something of such earth-shattering uh consequence i i i guess what i feel like is if they're chewing up the credibility of everyone who can hope to talk to the

public i mean let me just say this this is against the\par

(1:18:27) backdrop of covid where some of us had to say i'm not so sure that we should be going to see chinese new year uh celebrations i'm not sure we should be running the la marathon i'm not sure that masks only magically work for people who work in hospitals and the rest of us shouldn't wear them oh no no we have to wear them in two weeks to flatten the curve made no sense what you're seeing is almost like a constant attack on the credibility of scientists with these child-like official narratives and a\par

(1:18:59) bunch of smart people who are held hostage to them because in order to challenge them results in in censorship and expulsion and you know just check out the comments the the number of negative things that you see scrolling by so what you're seeing is you're seeing the degradation of your scientific uh class forced to deal with inadequate information spending their time in things that are completely inefficient because of the presence of centralized narratives which are then given the sort of blessings of the\par

(1:19:37) institutions and so what's what's ultimately going to happen here is is that we're not going to believe almost anybody if we keep chewing through this the way we're doing uh i'm worried about what happens when you can't go to sam harris for sobriety or michael shermer for sobriety like i'm willing to swing at a bunch of pitches in part because i came from a family that went through the mccarthy era and we found out hey you know all those conspiracies a lot of them were really true because they were targeted on you and\par

(1:20:05) your family right and so my bayesian priors have to do with the fact that a spy was sent against my own family and when people say oh well you know that's conspiracy talk well if we if we had known that there was a spy sent against our own family we wouldn't have had our names read on national television and that turned into peris now would we so you know in part i'm going to take the prerogative of saying having been betrayed by my government which i still love and support but i also know that they actually do conspire\par

(1:20:34) right now the biggest danger we have is the degradation of trust in authoritative voices because if to sit inside of the institutions means to depend on a paycheck that is subordinate to a narrative to sit outside is to be is to risk becoming a crank talking to the public the question is why why are these people having these conversations why are grown people talking about little green men and you know i just i have to tell you i came off um a a 3 000 person call on twitter spaces because my brother just got the second\par

(1:21:11) strike as a an evolutionary theorist talking about whether or not ivermectin might be effective against covid and that whether or not novel mrna vaccines might result in free-floating spike proteins that would have degradation at the level of histology and cytology and the idea that susan wojiki whoever the hell she is has the right to shut down biologists and even potentially the originator of the mrna vaccine technology or one of the innovators we have a right now brian what we have to do is we scientists have to stop being employees we have to\par

(1:21:54) have our professors remember that they're not meant to be the employees of the universities they are the owners and to subject people to implicit bias testing which doesn't make any sense or to have somebody who can compute the anomalous magnetic moment of the electron subjected to critical race theory to get them to be more racist as a compulsory part of employment is a degradation of the condition of american citizenship and it is getting to the point where i'm ready to pick up a torch and a pitchfork\par

(1:22:26) and march on the chancellors of the uc system and other fine universities and say

over my dead body give us our data give us our dignity get the hell out of our labs get out of our classrooms pretty pleased with sugar on top we've created the prosperity of the country and it is now time for you to remember that you don't have administrative rights over me and if if susan wojcicki starts to throw brett weinstein off of youtube and if we get thrown off because we're having a ufo conversation i'm going to have to ask whether our\par (1:22:58) society has been hijacked by a geopolitical strategic rival because this is incredibly dangerous you don't chew through the credibility of your public-spirited smart people who are technically capable of set separating fact from fiction when given proper data and autonomy and subject them to being you know supervised as if they're toddlers in the nursery michael any response from you about the uh listening listening to you is like it's like martin luther nailing the 95 theses on the door i though he's got more theses you know i\par (1:23:36) call eric you know they say michael most people are if they're lucky they're broken clocks they're right you know twice a day well eric is my atomic my atomic clock so how do you respond to all this michael well so i guess well no i mean these are all good points but the question is that the way eric describes it sounds very top-down very agent-prone like there's somebody kind of manipulating things i do wonder if it's more just bottom-up just the way the system is designed uh to end up with these kinds of\par (1:24:06) sensorial uh actions against individuals or universities becoming these just kind of quagmires of bureaucracy that can't seem to stop from tripping over themselves i don't know it's it's a hard call it could be both uh you know when you start pushing critical race theory and and you force people to take implicit uh bias tests which have we know don't work they do not measure what you think you're measuring we've shown that we ran columns seven years ago from carol tavres summarizing the meta studies on this\par (1:24:40) implicit race test showing it doesn't work it's not measuring implicit racism it's measuring the speed at which you respond to objects you're familiar with or not familiar with as a race or a gender or a size or whatever it is that you're doing so not to mention the second part of that which is that there's no evidence whatsoever that any of these training programs do anything to alter people's attitudes to other people uh unless it ends up making them even more hostile for having to go through these programs\par (1:25:13) trying to make me more racist of course that's the problem you know michael yeah you know if i say michael what what are you doing for your anti-anti-semitism training there's no way he can answer those questions right i can't answer it right right but but my point is this is this just what big bureaucratic agencies end up doing just sort of kind of going along with the media narrative that you know black lives matter okay so we got to do these following things i don't want to do it but you know we\par (1:25:44) should do it uh and that's kind of a bottom-up more of a bottom-up explanation of what we're going through versus there's a handful of people at the top kind of manipulating us uh into going in this direction or you know some combination of folks there definitely is a handful i mean as eric said you know eric susan majiki when i was looking on there the first thing i thought is like where is they have a youtube medical team like that's pretty awesome like you know they're really looking out for it but\par (1:26:10) they don't right who are they what are their credentials if if that which can be refuted by scientific evidence in the preponderance of we have a right for transparency and accountability but then eric can't they say to you you don't like it you make your own platform are you kidding me i mean i've been through look i don't mean to be there's a point at which

you have to appreciate that the more i reiterate the same simplistic points that these are communications utilities and i have an old joke\par

(1:26:41) as a democrat should republicans be allowed to use the roads lord knows they could get up to something conservative they might actually meet and they might have unfettered conversations behind closed doors so at some point when you're having a conversation about should republicans be able to use the roads to meet in an unfettered context having conversations in plain political action um you have to recognize that is not a natural conversation that is an insane conversation and i say that as a democrat and maybe even a progressive democrat uh\par

(1:27:15) what we're talking about all of us have enough years on us that we remember a very different world whatever this thing is you know as i say everyone can prove to themselves by doing any research that peer review is not naturally a part of science there is nothing that i am held up as a crank for more than reminding people of this truth anyone who speaks a particular truth becomes a crank in the eyes of the narrative this idea of calling vichy france france is intrinsically a offensive to a frenchman uh sheltering in england plotting and\par

(1:27:50) caucusing with the english as to how to retake the nation of france right now what we need to do is we need to retake the nation of science we need to take our own universities back and you know nobody believes in this stuff who's smart we just all sit around cowering like uh spineless invertebrates every time somebody threatens to call us a name and what i'm trying to say is brian you remember how to do physics you remember how to do science you remember how to communicate it but what we don't do is we don't stand\par

(1:28:21) up and say what jordan peterson said or brett weinstein said or i say we have to effectively say no moss you can fire me and as einstein said so brilliantly and clearly it is the obligation of the public intellectual to face financial ruin in prison and if we're not willing to face financial ruin and prison to defend our values which provide the prosperity and security under which everyone else shelters then we deserve to learn mandarin in our schools in preparation for our future now i personally would like to avoid\par

(1:28:57) that i'd rather learn yiddish or hindi but i think it's extremely important to recognize that this is the moment and you can't slither away from your destiny forever and you know kind of uh turning now to some questions and uh from the audience that people are asking things you know that that i find are legitimate again i don't have the courage to put on a uniform and fly in an f-18 i'd love to do it it would be a lot of fun and i'm hoping someday you have the courage to talk about jeffrey epstein and the\par

(1:29:28) intelligence community do i yeah oh uh not to the level of of you but i find it fascinating i'd love to know more about it i think we've covered i think i have a one conspiracy limit per per episode so i would love to keep talking about it but uh but no seriously i would like to talk about it but obviously you you've taken that issue saying that you you can't ask the same people to load up on the wuhan lab leak jeffrey epstein the madness of critical race theory we've got these designated expendables\par

(1:30:04) right and they have to hit every single thing to keep our society from going in this extremely degraded direction do you think it's coming primarily from the university michael you teach at chapman university um your classes are you know renowned for their clarity for their excellence and for their popularity um you know what do you see on campuses do you see us being outmoded i've talked to eric about this in the past are my days numbered are our days numbered as faculty when we can get instantaneous access to information perhaps

filtered\par

(1:30:35) perhaps not but um why learn from me when they can learn from you know galileo or carl sagan or or whoever essential threats to all these institutions including media and academia if it was just the knowledge then maybe but the uh value of the degree of having gone to the brick and mortar buildings at that particular ivy league or prestigious university that carries weight according to the current narrative that's what you're supposed to do then yeah then no we're our days are not numbered you know that's that will continue to\par

(1:31:11) those autodidacts who don't care about that they just want to learn uh they can do all that without going to the brick and mortar buildings and i think they will i just think the levels of education will increase dramatically uh through you know internet sources and so on without having to do that but the universities will continue i think it'll be interesting to see you know the fallout from the pandemic those universities uh that were just kind of on the margins financially anyway they may fold uh much like a lot of restaurants that\par

(1:31:43) close that just could never reopen again that may happen uh remains to be seen on that after they got their ppp loans you know and now they still can't bounce back you know we'll see in the next year or so but the big ones you know they have endowments they can last for years being hammered financially and and so i i think they'll continue because we continue to overvalue a college education i have to say even though i'm in the academy and i value it um you know i just you don't need that to\par

(1:32:15) have a good life to have an enriched life or even to be rich for that matter you don't have to have a college degree uh you know so i think you know that's it in general i think we're going to have to move away from we're going to have to decouple uh teaching and uh and babysitting from research though i think that it's very important to recognize that the babysitting that rockefeller university the university of california san francisco perimeter institute the institute for advanced study are all effectively universities without\par

(1:32:50) undergraduates and in the case of the institute for advanced study it's without graduate students not to say that you can't be on loan from princeton the university i think what we're coming to understand is that the danger of housing weaker subjects next to stronger subjects and teaching next to research with actually a tremendous hazard and that what had previously been seen as a symbiosis whereby teaching and research both aided each other in a particular life it is actually a tremendous risk when\par

(1:33:24) the culture of academics has been lost the culture of academics being lost has to do with a bunch of different things has to do with the eilberg amendment of 1976 the by don't buy dole amendment of 1980 the immigration act of 1990 the mansfield amendment of the late 60s early 70s i think that you have to recognize that something has marched by making structural changes through time that leave us less free our professors have less autonomy they are now thought of as teachers um they are subordinate students all of\par

(1:34:01) this is completely wrong to be called nas lug um have made disastrous choices for our elite research universities and people have to recognize that there are certain things that we have lied to the public about or at least misled the public about the principal feature of a research university is research not the teaching of undergraduates and until we actually get to the point where we can say look this was a funding model it has a lot to do with a guy named vannevar bush and something called the endless frontier\par

(1:34:30) which was the blueprint post world war ii until we were actually able to educate our people in a non-fictitious history of how we got to be this powerful rich and smart um we are

going to assume that americans have always been stupid that in fact universities have always been about teaching that all subjects all professors are called scholars no subjects are better than any others that there's no relationship between the military and our science that there's no national character of science that just\par

(1:35:01) actually um you know sort of uh is something that we fund with our taxpayer dollars but all these things are for the good of the planet that our graduate students aren't students they're workers the problem is is that when we wake up in the morning and we have a steady diet of lies that can be detailed but there's no place inside of the establishment in the institutions that is keeping an accurate version of our history so imagine you're living in a house where the plans to the house are completely fictitious\par

(1:35:31) and every time you try to do remodeling or you try to fix a water main or a sewage pipe you find out that the plans to the house aren't actually corresponding to the house at all that's the problem with lying to yourself about your own system by the time the people who started the lying uh pass on and their great grandchildren are manning the system the the family no longer knows how the house works they live in it but they don't actually understand how it was built and what changes were made and that's where we\par

(1:36:02) are right now is that we can't fix our own problems because nobody who's courageous enough to actually say what's true can get anywhere close to being a provost or president or a chaired professor yeah we had a taste of that during commencement season in the various universities across this great state of california where where i'm privileged to teach but again we see as i see existential threats i see you know if you do a swot analysis we have certain opportunities but the opportunities seem to be\par

(1:36:37) if you divide opportunities by threats i i think the ratio is not looking very good for my profession and and as you look at i had on michael saylor at the beginning of this year and he was making public sailor academy making an accredited university to teach stem subjects now he's not going to teach you know as he says he's not going to teach you know literature and uh and french poetry but he's going to teach stem you know can you learn to code you can do stuff online with some class-based cohort\par

(1:37:02) stuff i think it's it's interesting but i'd like to know from you guys so we know and we believe and i am worried actually to be honest about you know demonizing you know china and russia i don't see how that serves thermonuclear nations to to to view each other not xenophobic purely although that's evil and wrong and racism is evil and wrong we all agree uh but but just to stipulate you know um what what are the are there any bright spots i mean i look at india i see them very fast to adopt things like\par

(1:37:33) cryptocurrencies i see them extremely highly educated huge population very mobile with 4g 5g these are incredibly you know is that is that a bright spot where do you guys see as a bright spot amidst it or are we really gonna you know potentially descend into a lot of potential you know xenophobia anti-anti-progress narratives i'll start with michael do you see any bright spots for either addressing you know addressing the claims of this original podcast or are just bright spots for progress of humanity technology etc\par

(1:38:04) given your efficient market hypothesis theory well i don't know how efficient it is but well anti-progress has always been around i mean you can you can go back to the ancient greeks who complained about uh you know the the lack of progress and so on and that's just human nature you know to focus the negativity bias drives us to notice negative things more than positive things and if you're a pundit you get almost no kudos for saying things are

getting better uh but but if you're a pundit that you\par

(1:38:36) know constantly talks about the you know at the end of the at the end of this and the in the demise of that then you get a lot more hits um and it's not that these things can't happen it's just that they they rarely do most downfalls are more incremental than than sudden not only but you know um so again the you know the end of the academy you know probably not i could see you know many positive shifts everything eric said i think is a concern uh you know how do you become a dean and then a provost and a president and\par (1:39:10) and so forth well there's you know a lot of politicking and i would want the job in particular because that's like a real job instead of getting to you know do research and and teach and all the fun stuff that we went into this in the first place uh and now it looks more and more like um within the last year or so that if you want those jobs you you absolutely have to to play the critical race theory card i i i just don't see any way around it at least for the next year or two many of us are pushing back on this but\par

(1:39:40) you know it's hard to say if the pendulum is going to swing back any time soon i'm fond of telling the story of my wife from germany you know when she came here and we started noticing these these trends and she kept saying oh my gosh you know i'm worried about our kid going off to school and getting indoctrinated and i kept don't worry that pendulum is going to swing back any day now and it's just been getting worse and worse and you know now the trans stuff on top of the race stuff and gender and\par

(1:40:07) everything else and you know it does seem like we've lost our collective minds but on the other hand there's a lot of us pushing back there's a lot of organization like barry weiss's new organization fair uh and they're not the only ones there's a dozen like that and also organized groups like the heterodox academy there's a dozen of those of organized professors saying we're not gonna you know we're mad as hell and we're not gonna put up with it anymore now maybe they'll lose their jobs i\par

(1:40:34) don't know but uh in any case there's an if you know it's the spiral of silence problem to break the spiral of silence you just have to have enough people speak out at just a tipping point might be three percent five percent of people stand up and say no and that releases the next 10 percent to say yes i was worried about the same thing i was afraid to say anything and then 20 more and then 30 percent and pretty soon you have a majority that say yeah yeah now we're not going to do this anymore and you know that's how it\par

(1:41:03) happens and so i i i'm hoping that that unfolds in the next i don't know five years or so um i can't say it's going to turn around the next six months though eric what do you see is any optimism i mean anything you've changed your mind on anything to be uh to not go away and and hit the sauce like i normally do after we chat tippie to make me not tippie is that my japanese whiskey no i never gave you the bite i only have water i gotta but this is ruach but uh not scotch unfortunately oh we're\par

(1:41:39) together um look i mean it's a it's an odd question i mean i i just people say well don't complain do something i do and i like one thing is is that um so far as i can tell people stopped trying to unify physics and geometric unity is in a live attempt waiting for somebody to engage it to push beyond both the einsteinian paradigm and the standard model paradigm that's a direct attempt to come up with new physical fields new forces to question the actual standard model as it is there are two generations not three and\par

(1:42:25) there's a reason you're being fooled about the third the world is not chiral it's emergently chiral so in essence attempting to learn your own source code is you know we

didn't really get to the point of saying which would have been responsible but terrifying assume that it's aliens then what yeah right so if it is aliens which has to be a leg on the decision tree the question is how would aliens make the most sense so one of the things that i've been trying to point out is is that we always\par

(1:42:56) talk about extra dimensions as if they are extra spatial dimensions but in my theory i believe that there are additionally either four or six temporal dimensions the ability to hack both time and space at the level of dimension is not clear to me as to whether they're accessible but imagine for example that you could enlarge rulers to shrink distances i'm excited about the idea of junking this fetishization of mars and uh and and the moon and taking a look at the night sky and asking the question if einstein\par

(1:43:32) theory is only an effective theory uh as indicated by the existence of schwarzschild and initial singularities in our model then wouldn't it be amazing if we could get beyond that as an effective theory and do to einstein what einstein did to newton and recover him as an approximation and find out whether a change in in our understanding and actually getting to the source code would unlock something new conversely the level of markets i've put forward uh a field theoretic um you know approach to economics\par

(1:44:05) together with my wife and i'm delighted to see that stephen wolfram uh seems to be in the process of discovering that inflation uh is a physical theory and that holonomia uh looks like the beaumarinov effect and he will soon i believe rediscover our work which will be tremendously exciting as his pr is somewhat better than mine so the issue of finding excitement with respect to new biological applications new crypto applications i think distributed computing is incredibly exciting um if you supplement bitcoin fixes this\par

(1:44:43) with things like academic freedom fixes this or geometric unity or gauge theory fixes this uh those those are memes uh unfortunately to the kitties in the uh bitcoin maximalist community who just like to cause trouble for the most part but to be honest those guys really have a point and a soul and they're trying to do great things i think that what happened in el salvador may be a disaster but the idea of a of a country adopting a cryptocurrency uh that it does not control to try to bring fiscal discipline and\par

(1:45:14) freedom is tremendously exciting given how bad el salvador has been in terms of all sorts of governance problems one of the interesting questions is does bitcoin fix this so i think that what you have to say is ar and vr are tremendously exciting uh personalized medicine is tremendously exciting space travel temporal uh and spatial dimension hacking is exciting i think that all sorts of things that we could be doing would be great the really interesting thing is is that sooner or later somebody with probably 11 figures of wealth and up is\par

(1:45:55) going to watch one of these pro programs and say you know there's only so much i can do with one more effing lamborghini why don't we try to actually do something that moves the needle and give a small number of the people trying to push the frontier the freedom over their lives that we take for granted or we can just go uh you know and put one more private plane in the fleet one more mega yacht in the mediterranean and just watch the whole thing crumble and burn so what my real hope eventually is is that doing this at\par

(1:46:31) scale we are eventually going to find somebody who wants to do something very different with money and so far as i know none of our billionaire class not one billionaire is really interested in rebuilding the stuff that is now crumbling and so you know if you're out there and if you're watching this there's a tremendous amount of stuff to do some of us will

pick up shovels some of us will pick up torches and pitch forks but somebody else should pick up their checkbook and get us the hell out of here so that we can actually\par
 (1:47:04) do something even more interesting than this amazing podcast which i've really enjoyed me too and that's actually eric y invited michael you talked about 11 figures of wealth and michael's here yeah yeah right yes retail i'm getting my bikes do you need michael yes yeah here's my checkbook how much how much is it that you need exactly how many zeros on that check uh it's just one how many is that yeah you should have said this one does he does he really need another all right guys i'm gonna i'm gonna sign off\par
 (1:47:34) and go have gage theory uh whiskey great this has been wonderful michael thank you so much eric thank you so much as usual just point to people i've had interviews with both these gentlemen wonderful conversations over the years i hope to have many more with you guys i always enjoy the conversation and uh look if you are interested i have a lot of videos about aliens i'm sorry to say this is my last video i'm gonna do i have one uh in the can that i did with uh seth strosstech but um i've had a very fascinating uh\par
 (1:48:02) ride learning about from different signs doing what the military calls a red team approach you get people on the best sides on both sides and you and you hopefully come to some notion of truth but now this expedition is over as we wait all with our uh collective attention drawn to what gets released in the next couple weeks i am dubious but i i hope i'm hoping for the more fantastical because that'll ensure job security for me forever for now please give a subscription to michael's channel skeptic on youtube please subscribe to eric's\par
 (1:48:32) channel also on uh on itunes both these guys leave them reviews leave them ratings it really helps us grow our channels and grow the audience with the algorithm that is continually working to defeat us anyway i'm brian keating your fearful host here at uc san diego uh co-director of the arthur c clarke center for human imagination stay tuned for some really cool videos that i have coming up about uh string theory loop quantum gravity uh polarization and also inflation in the multiverse and god why are so many physicists talk about\par
 (1:49:02) god we'll get michael and eric back on for that guys love you guys all right wonderful night thank you all for joining good night guys bye-bye bye eric i see you again see you as always [Music]\par

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Steve Justice interviews the legendary Dr. Hal Puthoff | TTS* TALKS Podcast (2020) - YouTube\par

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Transcript:\par

(00:00) in this episode of ttsa talks coo Steve Justice helps us get to know the legendary Dr Hal pudoff ttsa's co-founder and VP of Science and Technology hi everyone and welcome to PTSA talks I'm Steve Justice and today I have with me Dr Hal poodle Hal is a co-founder of ttsa and the vice president of our Science and Technology division I first heard about how uh probably 25 years ago there was a gentleman that I worked with that had worked with Hal in some previous projects and talked about how Zero Point Energy work and so\par
 (00:46) I got a chance to follow Hal I uh I knew of his work and um I it was one of those things

that was just really interesting to me and as we got in towards 2016 and 2017 and where I got to know Tom DeLong Hal was working with Tom at that time how being again as I said one of the co-founders of the Stars Academy and uh actually got a chance to meet Hal for the first time in in 2016.\par

(01:24) uh and and go to dinner with him and just spend time with him and it was absolutely delightful and I think you're going to see a lot of his personality come out here today in a way that you really haven't had a chance to see as I talked about in the the previous podcast where where Lou interviewed me right after I retired I took a trip to Austin Texas to Hal's Earth Tech uh company and uh sat down with Hal and his team for a few days and I saw pictures of Hal sitting with Dr Teller a famous physicist uh I got to to talk to Hal about all the different work that he\par

(02:05) was doing and it was a it was an absolutely delightful couple of days and I hope you find this podcast to be equally as delightful he has published papers on so many subjects including general relativity and space propulsion uh he has lots of patents in laser communication and energy Fields just a a brilliant brilliant man but also just one of the kindest human beings you would ever want to meet on the face of this Earth so thank you so much Hal for being here today well thanks Steve I appreciate the opportunity to chat with\par

(02:43) you about all this stuff good um so we're sitting where are you right now I'm in Austin Texas and uh due to covid I'm zooming from home so to speak and uh so that's where I'm carrying on my work these days well it's it's really good to see you and really good to be able to sit down and and chat with you so first of all let's talk a little bit about what made you who you are uh what's your background where'd you grow up um and what got you interested in science well interestingly enough uh I started\par

(03:22) out in Miami Florida in my high school days and I wanted to be a disc jockey so I went to uh I went to in fact I I did go to a vocational school and radio had radio communications as my as my topic and during the Summers I did I was a disc jockey HP the cool one they they called me at the time oh that is fantastic I love it anyway as part of radio communications I got interested in ham radio so while I was still in high school I built my own ham radio and talked all over the world and so that just that got me absolutely\par

(04:04) uh hooked on science in general and then as it turns out a key thing that occurred while I was in high school is an article came out in the Miami Herald talking about uh the two two article series talking about how all the Aerospace corporations and the government were very interested in anti-gravity and they're all working to see if they couldn't uh you know develop that that kind of technology and that for some reason I just caught my fancy that that that's so uh got my attention that actually I went out to a technical\par

(04:42) bookstore and I brought a graduate level textbook on electrical engineering and and put it on my bedside table and I said someday I'm going to understand this book and so as it turns out for you how old were you when you bought this graduate level book I was probably 16 15 16. and interestingly enough in my master's degree program when I eventually was at the University of Florida I actually used that textbook in a graduate level in The Graduate level course so anyway that's that's what kind of sparked my\par

(05:19) interest and so over the years uh even when I was getting my engineering degree at the University of Florida by the way is an interesting aspect there also uh as I got ready to graduate that was back in the time of the draft and so on so I also joined the naval reserves and I became a naval uh Reserve officer and I was about ready to go on active duty in 58 but

that's when uh Sputnik went up in October of 57 and so Congress passed a law saying that anyone who was in a technical area could stay for a master's degree program so I\par (06:04) stayed there University of Florida in Gainesville did part-time work at Sperry electronics and did my Master's thesis there and a new form of focusing Hollow electron beams in fact I did such a good job on that that when I left to go into the Navy uh they said well you know if if you want to come back to University of Florida we'll accept your Master's thesis as a PhD dissertation but uh I decided I didn't want to take a chance on on necessarily some years later deciding to go back there so I said thanks but no thanks\par (06:45) I'll I'll take my Master's Degree and get going now interesting enough because I was enabling officer with a technical background I ended up getting uh sent to the National Security Agency now this this is a a critical feature in my interest in off weird topics and that is of course NSA at the time was developing all kinds of high-speed computers about that time computers on the street were running at about a megahertz and uh we needed gigahertz computers for uh for code breaking you know Russian encrypted messaging and so on and so I\par

(07:31) was put in charge of developing a computer an optical computer that was a thousand times faster than anything on the street and so I I did a pretty good job we got up to 750 megahertz and I even got a certificate accommodation from the director of NSA but basically the important feature here for what we're talking about today is the fact that I suddenly realized that at least behind closed doors uh uh Technologies are being developed that are just sort of off the charts in comparison to what's out there in the\par

(08:07) public and so that made me recognize that you know if I ever had a chance to get involved in in that kind of work for the government again I would certainly take it and as years went by uh eventually because of my interest I was invited to join uh Robert Bigelow's uh group called National Institute for Discovery Science where he was looking into all kinds of unusual topics including UFOs and things happening at Skinwalker Ranch and all that kind of thing and so that's when I sort of got my feet wet about the UFO\par

(08:47) area which I which I found really interesting and we had people like Ed Mitchell who's Apollo astronaut and other people were interested in UFOs and that's where I basically learned about the UFO topic and because of that exposure it turned out that when Bigelow finally responded to A dia request in 2007 to set up the atip program Advanced Aerospace threat identification program for uh the DIA to investigate UFOs since I've been involved with him and his National Institute for Discovery Science and invited me to be part of that so uh\par

(09:34) that's how I got officially involved in the pentagons program unfortunately at that time I'd already set up Earth Tech International in Austin Texas and so I had funding to pursue Advanced topics and so the idea of being part of that kind of program fit right in no no real quick just to back up for one second where did you get your PhD well I got my PhD at Stanford University it turns out as I mentioned I went to NSA as a naval intelligence officer between my masters and my PhD then after I got out of uh NSA actually got out of\par

(10:16) the Navy and I actually stayed on at NSA for a while as a civilian but then I was sent out to Stanford to get my PhD and so uh I'm still actually an NSA employee although not advertising it of course because this is back in in the days of a lot of negativity about government actions and so on but anyway after I was on the Stanford campus for a year or so I decided okay I probably wouldn't want to go back to NSA and never be able to publish

anything and so on so so I quit my NSA position but I graduated from\par
 (10:54) Stanford as part of my work there at the time lasers were not tunable you you know like with your little handheld laser pointer that's got one color associated with it other lasers have their colors associated with them I actually invented a tunable laser or I could tune the colors and so that was one of the first lasers of that type and so while I was at Stanford I developed this tunable laser and it ended up we got it patented and that was also my dissertation so once again I was sort of out there in the Forefront of doing impossible things\par

(11:40) on the time that was considered kind of an impossible thing so uh that's just a continuation of my being interested in in pushing the envelope and I have to admit that you know if I'm just doing something kind of standard adding a couple more decimal places to something uh I'm bored so I'm always on the lookout so let's let's let's talk about that just a little bit because that's one of the the really I believe unique things uh about you and your your your interest and and motivators you you like the hard things\par

(12:19) to do the difficult things to do you like the seemingly impossible the the diving into new areas and and when I went to your lab in Austin the first time one of the things that really struck me was you had these incredibly complex scientific experiments but that were accomplished through relatively simple means and and that simple is not is uh simple is sometimes very difficult to achieve right you know it's it's a um it's it's one of those very distinct challenges in science where it's really\par

(13:06) easy to go down the Deep technology path and so if you could talk just a little bit about your your approach in here because it was it was a recurring theme you you simplified very complex both Concepts as well as it will come very complex experiments but you approach them from a very simple you you in manifestation of them was a very simple approach can you can you expand on that thought process a little bit for me uh yeah I give you a perfect example at Earth Tech um since we're interested in you know new forms of say energy and\par

(13:49) propulsion for space flight that was one of our our remits from our sponsors uh that therefore made me interested in okay well uh are there any new uh forms of energy or new forms of propulsion that you know would really push the envelope or whatever and so uh I got funding to pursue that we had what we called the Maverick inventor program we decided that uh you know the truth of the matter is as smart as we think we are uh we may not be able to come up with a new energy or propulsion uh Source or whatever it may be some guy in the\par

(14:29) garage who doesn't know what he's doing who tries some experiment that no physicist in their right mind would ever think of trying and he might just stumble on uh a breakthrough and energy or propulsion so I said okay well I think this Maverick inventor program we we have to turn that into the in the end of the real deal and so the simplified aspect is we ask ourselves well how do you measure energy Well turns out a very fundamental kind of structure the manual to to measure energy is what's called a calorimeter\par

(15:02) um and so we built it okay describe what a calorimeter is and calorimeter is a very in principle simple idea and that is if you have a new energy source use it to heat water and when you see the temperature go up you'll know uh how much energy has gone into that water and so the idea is we would build a calorimeter now it took a million dollars in a couple of years to build a really high quality calorimeter but but the principle is very simple and so

then we would advertise uh if you think you have new uh source of energy\par
 (15:40) for example I mean and we got a lot of people bringing us cold fusion devices new forms of magnetic uh energy generators and the thing is they'd bring them in and we would measure their input energy with this calorimeter we'd measure the output energy of this calorimeter we would see if they were uh generating more energy than you count for what you're putting in to be the goal and unfortunately I have to say that our website is a graveyard of Dash inventors dreams because although we tested more than say\par
 (16:19) 50 devices um we found out that in in all the cases where they thought they had something it turned out was some kind of artifact and so we we didn't actually find a new source but it still was it was the pursuit worth pursuing because as far as our investors were concerned you know if only one in a million worked that would pay for everything so that that that was a big effort a second effort it was uh which involved the device which you saw when you were at our lab is really in principle pretty simple we\par
 (16:58) decided to measure Newton's law of gravity I mean standard measurement which went back to whatever 1700s and so on but anyway people have heard about the idea that whether it's dark matter there's dark energy and all that kind of thing uh one of the ideas about the dark matter is simply the fact that if you take a look at the solar system and you calculate the orbits that you should be getting from Newton's law simple form of gravity you find out that the planets in fact aren't exactly following the law as\par
 (17:42) you'd expect them to follow and so that's when astrophysicists came up with the idea well maybe there's some additional dark matter in there that that are holding the planets in more than you'd expect from from your calculations well we took a different view in that that's the view of most astrophysicists took but we took the view of okay well maybe it's just that Newton's law of gravity uh under the conditions of the slow kind of accelerations and movements that outer planets have\par
 (18:13) maybe gravity has a stronger effect so we decided okay we'll let the astrophysicists change their theories but we're going to go in the lab we're going to build a simple device to measure Newton's law of gravity for very slowly moving objects moving at the rate that you'd have a planet at the outer edges of the solar system moving and so we build a very sensitive uh gravity measuring device I mean we could not have cars in the parking lot because the cars gravitational attraction would set off the experiment\par
 (18:48) and of course you've got cars going along highways that are not too far away so you have to do some very sophisticated things like measure them in an oscillating format so that you could dig the signal out of the noise on a computer so so real quick for everybody that doesn't do this for a living anything that has mass has gravity associated with it right right so any a car a person any of that kind of stuff and so you know you had your fixed building and that kind of thing so you were trying to fix the\par
 (19:23) environment around you you know and all the stuff in your lab all the stuff on the shelves and everything all had Mass so that was relatively stable and so you what you didn't want to have was a car there one day and not the next and that kind of thing that represented a change in masses around the thing and this is where because the experiment took place over what time period we gathered data for like two years right and so you had to deal with traffic driving back and forth out there on the adjacent highway but you tried to\par
 (19:59) control as many chunks of mass as you possibly could during the experience right for example we could not walk into our laboratory when we were taking data right the body's

Mass would be enough to throw the experiment off so anyway what could be simpler than measuring Newton's law of gravity but it was for a very profound purpose to try to uh resolve a great astrophysical Rhythm and of course we still have that riddle 96 of our universe is dark matter and dark energy so what we think we know is it's only about four percent of what's\par

(20:36) going on so that's still a big area to investigate so what was your basic finding for this because when you would look at the apparatus it looked you know to the Casual Observer that didn't know what they were looking at it looked like a kid's Carousel it was a big log beam on a pivot um very very simple looking device uh but what what results did you get out of it well very interesting result actually we were looking to see if maybe Newton's law of gravity at very slowly moving very slowly moving objects uh changed\par

(21:13) but in fact we did not see that on the other hand we got a great publication out of it because we measured Newton's law of gravity down to lesser values of gravity than had ever been measured in the history of the Earth so we got a super paper out about measuring Newton's law of gravity as being quite right on down to gravitational attractions that were less than it ever been measured before so when you say less than ever measured before give give the is there a number you can provide uh let's see off the top of my head it'd\par

(21:52) be I don't know something like uh 10 to the minus 10 meters per second squared or something okay so yeah it's really weird it would be on the order of um a person walking uh by your instrument at uh you know a thousand feet away or something okay but it's it's it's billions less than billions of a percent yes exactly it's just this tiny tiny tiny because uh what is it 9.\par

(22:30) 8 meters per second squared is exactly elevation down to trillions of that trillions of that yeah so extremely accurate measurement from a relatively simple looking device but it was it because it was rather simple looking it was simple looking and uh the thing was uh so how do we get around noise like cars going by and so on well we would simply move the objects that we were testing the gravity between on an oscillating motion and so therefore we could go into the computer and only pick out the measurements that occurred at that\par (23:11) oscillating value and so that's that's how we're able to quote as we say dig the signal out of the noise so it's a very simple conceptual experiment but it took a lot of sophistication to actually do it oh absolutely and that's what I say it doesn't mean it was easy as simple as it does not mean easy and uh and that's one of the things that I thoroughly enjoy about the discussions with you because as we would start talking about wormholes or or engineering the the space-time metric one of the things you\par

(23:46) were able to do for me was bring things down to very very simple terms and so um you know I want to I want to get to that in just a few minutes but that my experience with you comes from ttsa and so I want to I want to make sure our audience here understands uh how you got together with Tom um how you how you came up with the idea of to the Stars Academy uh and and then and then we'll go into some of the projects of ttsa so how did you meet Tom and uh what how did you get to the Stars Academy up up and running because since\par

(24:29) you're one of the founding members well as I said I I did get involved in the pentagons UFO program or we call UAP unidentified aerial phenomena I was a senior advisor and a contractor and so I did get very much involved in uh in the technical aspects of the UFO program for the government before I ever heard of or or met Tom and in that program again

following my my my usual mode my particular task was to recognize that uh you know if we're going to solve the problem of UFOs and how they their technology works and\par (25:24) so on we're gonna have to go Way Beyond what we know today and so in fact I commissioned 38 papers from Top scientists around the world in their areas of expertise whether it be um oh say invisibility cloaking or warp drive or new kinds of materials that might have some possibility of controlling gravity and that kind of thing so anyway I got I got totally turned on and immersed in all that and once again so I'm always looking forward for something and as it turns out about that time there was an interview of Tom\par (26:04) DeLonge by George Knapp on his uh Las Vegas podcast or radio station and Tom went on about how he had started talking to people in the Aerospace industry and in government and he proposed the idea that uh uh you know maybe a kind of structure that he might set up that would involve the public rather than uh just you know secret government work you know might be a way to go to to make some Headway in the subject area and that caught my attention I I you know I'd never heard of Blink 182 or whatever so but anyway when I said you\par (26:49) know I've been talking to Tom DeLong uh you know blank uh band there and and all my kids say oh my God you know he's the top of the line guy and I said yeah but it turns out he's interested in the same kind of things I'm interested in so so anyway uh at some point uh Tom suggested we all meet in San Diego and so uh I showed up for that meeting and so after hearing this uh interview of Tom um my George Knapp I got in touch with him and said uh you know I'm I've been involved in this kind of research for\par (27:28) the government and I like your concept what you're describing so yeah I'd like I'd like to I'd like to meet you and and discuss uh you know any kind of forward motion here so he he invited me to come out to Encinitas and um Jim Simivan uh who I also knew and uh so we had a discussion and then Tom put out his idea of having a some kind of public benefit Corporation to explore this area to collaborate with whoever would be willing to collaborate with us in the real world like government and Aerospace\par (28:05) corporations but nonetheless to have as its goal to explore the UAP area from a strictly scientific standpoint and to share whatever results we found with the public and so that was the concept of the public benefit Corporation somehow that caught my attention as being a very cool thing that think of going forward with so when he asked me if I'd be willing to consider being a vice president for science technology I said uh sure I'll I'll sit on your board and and and play and be in that role and so uh that's sort of how we then uh\par (28:49) set up launching ttsa the meeting in Seattle and um the rest is history and a growing history absolutely okay so there's um there was a number of uh we'll call it scientific um uh studies that you had going on at Earth Tech that became part of the scope of of ttsa and the one that was really fascinating to me was the space-time metric engineering ever so I I had my chance to sit down and talk with you about it uh so for the audience out there uh can you explain what the the space-time metric engineering\par (29:44) what it means uh what uh what kind of where we are with that and your vision for where we need where we can take it okay you know the average person on the street hears that uh well according to Einstein you can't go fast in the speed of light uh well that's a general idea that people have it's based on what's called special relativity theory of special relativity but it turns out that uh although that was developed in 1905 by 1915 Einstein moved forward into the general theory of relativity and turns out the general theory of\par

(30:30) relativity has some you might say shortcuts and back doors at the Alamo and end around run aspects and so that's why we have even in the popular culture you know films like Interstellar where you're talking about warp drive and faster than the speed of light kind of dry that's all part of of general relativity now it turns out that if you look around and say okay uh who's investigating general relativity well it's it's basically astrophysicists are worried about the black hole mergers and\par

(31:09) neutron stars and all that kind of thing but I came at it from a wholly different standpoint I said okay in electromagnetism we have a set of equations called Maxwell's equations and basically those equations are what we use to develop everything from light bulbs to batteries to Wi-Fi you name it but no one ever thought of taking Einstein's equations for general relativity and saying okay well let's look at these from an engineering standpoint suppose I could engineer general relativity equations of Einstein just\par

(31:46) like all the electrical engineers Engineers Maxwell's equations for electromagnetic effects no one had ever thought of doing that actually so but anyway that was my challenge that I gave myself and I actually gave myself that challenge as I was part of the government's UAP program and so I did a really interesting thing I said okay looking at how UAP phenomena seem to occur and looking at say electrical equations Maxwell's equations I I don't think we're going to handle it that way it's\par

(32:23) just uh we we don't see a Way Forward there so well what about general relativity and so I got a piece of paper and in one side of the piece of paper I wrote down all the weird claims of people who claim to have observed UAP phenomena and the claims are you know can be pretty weird uh uh you know drove over my car and my car lifted off the ground or uh it put out this enormously brilliant light and yeah just on in fact from my standpoint for what I was attempting to do the more weird the description the better\par

(33:08) because if someone is just making up a story they want it to sound rational and that makes sense so when somebody tells you you know there was a craft and it was you know only 30 feet across but when I got inside it was as big as a football field you know that kind of stuff you say oh my gosh you know who would make that up if they want to sound rational so there's maybe something to that so anyway there's my list of weird phenomena on the left hand side of the piece of paper and so that I said okay suppose I take\par

(33:37) general relativity Einstein's equation for general relativity uh and I write down what kind of effects I might be able to see uh if I was able to engineer those equations I wrote those down on the right side of the piece of paper and I got a match I got a match between unusual reported phenomena on the one hand and what would happen if you could in principle engineer Einstein's general relativity equations and so that convinced me okay then I think this is the way to go and so space-time metric engineering well\par

(34:17) General activity has to do with the space-time metric that is time and space as we usually know it but can get distorted in general relativity and so I've said okay now one might ask well well we've got the equations and you think you know how it works why haven't we built one well it turns out that uh uh to get those very large macroscopic effects as we would say it looks like you need a lot of energy and a very tiny vime and so on so so we haven't yet engineered it but nonetheless I think we\par

(34:52) have the blueprint for the direction to go to try to engineer it so that that that's become a passion of mine and so when we sat down to talk about possible engineering Concepts and projects to pursue in the tsa I said okay space-time metric engineering that's

one of the items that's got to go on the list I mean there's there's a lot to do in terms of computer modeling and so on carrying out some experiments to measure weak space-time metric engineering effects that we can then be into in the\par

(35:27) long run engineer up to be a real use so anyway that's how that project got started and Tom and others on the board said okay well that you've made a strong argument here so and you were part of the support of going in that direction so so that that's an area that that I'm really up on one of the things that was really interesting to me I got an email from you one time saying okay do you know of any like really big power source that can fit into a little tiny space that that may explain why we're seeing you know the effects of\par

(36:04) a black hole but in in something very small because uh one of the slides in your deck on on space-time metric shows this Distortion effect as a function of how close you are to like a black hole or a song something like that where the the variables to density or you know are variables to mass frequency time all those things that you saw a length was one of those like you talked about um somebody stepping inside of a field or whatever it was and suddenly Dimensions seemed to change um you saw those effects as you would\par

(36:43) get close to one of these giant masses in space like a black hole and the question was how do you replicate that inside of a vehicle and they when you and I talked on the phone it was about there must be some mechanism that is simulating the effect of a black hole there there's a a synthesis of it do you remember this do you remember this discussion I do remember yes very very interesting very very relevant and and that's where um you know for for our audience sake where this collecting materials that that could be from\par

(37:24) um crashes or whatever it happens to be things unusual materials are are they a clue to how you might you know create the uh I'll call it the the energy source for engineering the space time metric is that a is that a valid set of statements I want to make sure that that's a valid set of statements and uh since in general we don't make things in the lab that create these unusual general relativity space-time metric engineering effects that means that therefore there must be some exotic material of some kind\par

(38:04) it might be you know a black hole many black holes that you know maybe we'll find floating around in the cosmos at some point and be able to to grab hold of them and and that that might be a boost or we might find out that some unusual combinations of materials uh uh do an end around run and create these space-time metric engineering effects without a lot of energy I mean that that would be great so in fact that's why I've been interested in uh in in the ttssa program project Adam in collecting any any materials that we can get that\par

(38:45) are claimed to have somehow been involved in in a UAP phenomena whether it's scratch retrieval or pieces falling off or whatever and so that's why interesting materials attract my attention right and an analogy for our audience could be you know the way we originally got light at night was from a fire that also created lots of heat but now we can synthesize like you have you know first it became light bulbs which did put out a lot of of heat also but it was a very different way of creating light and now you have\par

(39:22) LEDs that create light with almost no heat whatsoever but they use a very different energy source than burning would to create light so you know the question is is there some sort of synthesis of these big energy sources that may allow us to do this is that a fair analogy that's a fair analogy and I think you know we're at the beginning of that path but given that there are observed phenomena that show that one way or another it must be possible to get very far along that path uh so that that's one of the interesting\par

(40:02) things of uh UAP phenomenon investigating UAP phenomena which is rather than sort of starting from scratch coming up with an idea and see if you can develop something that may or may not uh work here we've got exhibits that there are phenomena that apparently do engineer the space-time metric and so we've already got uh you know something a quiver an arrow in our quiver that says in principle it must be possible to get from here to there and especially and there are some very good sightings I mean Kelly you know at the Skunk Works early\par

(40:48) on and some of his Engineers had some observations from many different directions at the same time a really exotic kind of craft and so uh you know therefore you have really high quality observers who are very Adept at Aerospace Technologies having reported seeing just this kind of advanced craft performing in such a way that it's not just depending on wings and jet fuel and so on so anyway uh that that's a very encouraging element it's like getting to look over the hill and see uh where you're going to get when\par

(41:34) you come down the other side so therefore it's worth climbing that Hill I agree and you know one of the things I always would remind you know my you know one of the things I would always remind my mentees is The Impossible is just something you haven't seen yet and and this is something that we're seeing so we shouldn't treat it as impossible there was there's been things throughout our history that we consider to be impossible you know going faster than the speed of sound or you know flying even uh for a while \par

(42:07) remember one one statement was you know humans will never go faster than 50 miles per hour because we couldn't breathe you know at speeds greater than that and yet all of these are are just temporary obstacles and and this is another one of those but we know this can be done there's enough reliable you know information collected not only from Human Witnesses but from you know now electronic sensors Radars and infrared systems and Electro Optical systems is that says this kind of physics it appears can be done so then\par

(42:49) the question is how do you do it and that's left up to us to go figure out so fascinating subject absolutely absolutely another fascinating subject um which is in a sense more mundane but on the other hand a real potential breakthrough is the idea of beamed energy propulsion it turns out that one of the tsa projects that we're looking at is in an area which we call beamed energy propulsion when you look at ordinary you know rocket propulsion to get into orbit uh you know most of the money most of the expenditure most of your problem is\par

(43:39) carrying the fuel on the rocket as the rocket launches toward uh space and so the actual payload that gets in space is you know 10 or less of the actual weight that you had to lift off the Earth that's because you're carrying the fuel with you well it turns out there's a whole other option uh and it's not an option that you have to wonder if it's going to work it's an option that has in fact been explored and proven and that is okay let's not have our rocket carry any fuel well how are you going to do that\par

(44:22) well let's say we have a very powerful laser on the ground that shoots the laser beam at the back of the rocket and then the rocket launches upward not carrying any fuel and it's not just the you know Photon momentum from the laser light no no it's not that you can have material on the back of your rocket or your satellite that you're trying to launch and the intense laser beam shoots at the back and heats up that material and that makes a plasma behind your little rocket and that plasma gives\par

(45:08) an enormous thrust to the rocket and off it goes well it turns out that this is a

technology that has been investigated and actually experiments done and proven both by NASA and by the Air Force and so whereas right now it costs something like ten thousand dollars per kilogram to put a rocket into orbit one more this beamed energy propulsion from the ground can get you up there at like a thousand dollars per kilogram in other words we can get a 90 reduction in the cost of launching things by beamed energy propulsion versus the old-fashioned way\par

(45:55) with rocket fuel so why why hasn't that uh you know taken off and we see it every day well for a while it took uh you know laser development to to beef itself up to where it was actually a real competitor and it has now reached that point so right now when you look at the materials on a piece of paper and you say my God this is the only way to go but of course you're talking about building a whole infrastructure to launch that kind of a technology and you're competing with a very mature infrastructure with the rocket fuels and\par

(46:34) so it's it's a hard startup it's a hard startup but nonetheless I think it's only a matter of time and that'll be that'll be the only way to go only way to fly so to speak and it turns out that especially a contributing factor is that our Electronics have gotten so well engineered to be so small that now satellites are smaller and smaller and we have so-called cubesats and nanosats which are really relatively small so the kind of laser Powers we have available now can launch them so someone just has\par

(47:13) to build up the the infrastructure and get out there and compete and one of the nice features of it is you can launch 20 30 of these a day if you wanted to I mean you just push the button and off it goes so this is a technology that tsa has committed itself to see if we can't find a way to get that moving ahead well how listen we have talked about a lot of Technologies out there I know we've answered a lot of people's questions about the a number of the subjects and Pursuits that tsa has but we do have some questions from the\par

(47:55) social media world you mind taking a few of those uh glad to sure go ahead okay so Ryan Sprague asks how and all your work throughout the years working with SRI now tsa and many other corporations how have you how have these varying phenomenon affected you on a personal and existential level that's a good question and beginning with my getting involved in the early NSA work where we're going to build computers that were a thousand times faster than any others that basically opened uh kind of a pathway in my own psyche for okay uh\par

(48:42) let's always look for something that's a real challenge that's really out there and so what that has done has sort of sculptured my scientific and Technical work to always be looking at the edges of what's known and what might be beyond the boundaries that we've already Incorporated so I'm just uh I suppose you could say I'm just I'm hooked on looking at the forward boundaries of any scientific area so you know all someone has to tell me is that they don't think something can\par

(49:24) be done and I'm right on it to try to figure okay well if it can't be done and then how can we do that and so the main effect that's had on me is that that have always been open to new ideas always searching the boundaries I mean I've looked at a lot of nonsense stuff and discarded it so it's not like I'm so open-minded my brains are falling out but nonetheless looking at Future possibilities connecting up with Visionary people I mean that's just my lifestyle and so in that sense it has affected me\par

(50:02) tremendously because that just is my guiding load star you might say and and I'll I'll just chime in here one of the the things that as I watch you operate how that I really

appreciate there is that open-minded approach but with scientific rigor so you you have the passion for this and you can tell it's almost genetic inside of you um but you you have that that balancing element of the scientist inside of you and so it's a it's a really interesting interesting combination that's a that's\par

(50:42) a great question Brian all right our next question is from Dan Warren and he says Dr putoff has been digging into the phenomenon in an official capacity for decades and continues to pursue it what is it about the phenomenon that has kept you pushing this hard for this long and what do you hope to learn about it going forward once I mentioned uh earlier uh uh an early article in in the Miami Herald when I was in fact still a teenager that talked about the possibility of Aerospace corporations and the government investigating anti-gravity\par

(51:23) and the idea that we could in principle explore our solar system and then explore the Stars I mean that that is just somehow is such a a thrilling concept to me that whenever I come across any new idea in the field of energy or propulsion or whatever that makes me think that there's a contribution or a pathway to begin to open up the possibility of humankind exploring the Cosmos on a grander scale uh that just uh is is a driving factor in in my psychology our next question comes from Arthur Iglesias he said Steve Justice said the\par

(52:14) metamaterials behave as sub-critical wave guides what does that mean he also says they should not be able to carry energy through it what can you tell us about this discrepancy so obviously I wasn't as clear as I needed to be in defining what a subcritical wave guide was okay well I can I can answer that in in great detail actually it turns out that as part of our exploration of looking at new materials that might have exotic properties and so on uh one of the materials that came our way was in a kind of a material that these\par

(52:54) days in modern technology and science is called metamaterial and so it turns out that uh this particular material very interestingly structured it had thick layers of magnesium and then inside those layers of magnesium there were thin layers of bismuth and so it's an unusual structure uh uh when we first came across it we did a big search uh well who who makes this kind of stuff I mean is this a standard material development that is being looked at and so on but even in the classified literature we could find no\par

(53:39) evidence anybody bothered to make this kind of material and the first efforts of trying to reproduce it found is very difficult to get these materials to to bond together and so it really seemed to be an exotic material now to get specifically to the question that that he asked and that he's not satisfied with your answer yes I can answer that very precisely it turns out that when you uh want to transmit um let's say gigahertz or microwave signals from one point to another we use what are called wave guides\par

(54:20) and so a wave guide can be like a metal pipe and you can send a signal down through the pipe and that's how you might send a signal from let's say a transmitter on surface of a carrier up to an antenna or whatever well those wave guides uh have to have dimensions on the order of the wavelengths of the signal you're trying to send so for example three gigahertz signal may have a certain size in terms of centimeters and so on so ordinarily if you're going to send a signal from one place to another through a waveguide you\par

(55:02) have to build your wave guide to be of the dimensions of the wavelength of the signal you're trying to send however it turns out that in this metamaterial kind of structures it turns out that you can actually collapse to a microscopic level those waveguide requirements so instead of needing a pathway that's roughly the size of the wavelength you could cut it down by a factor of 30 or something it's sort of sort of like going from vacuum tubes to transistors

to integrated circuits that microminaturization it turns out that\par

(55:44) these particular phenomena of meta materials as we call them now permit that kind of microscopically shrinking the size of what you need so what that means is that you end up with really very nanoscopic wave guides that can carry the energy at those frequencies even though ordinarily if you're building a waveguide it wouldn't be able to do that so it's it's an unusual property of the juxtaposition of these unusual particular materials together that gives you that sudden advantage of being able to miniaturize\par

(56:24) your waveguide so in a relatively small piece of material you could send a lot of energy and a lot of signal that ordinarily before metamaterials were discovered you would think you'd need to have a whole raft of pipes to carry a signal okay great explanation Hal I really appreciate that and my apologies to Arthur for having not been clear in my original description of what was going on so uh I want to flash back for just a second how to my very first visit down to Austin when I spent a couple of days with you and\par

(57:05) your team and we were we were just talking and there was a question that popped into my head I never really asked it it kind of got answered just through the conversations over lunches and dinners and that kind of thing but you you've had this this life and career that is unlike the vast majority of us in terms of the the circle of people that you associated with the Technologies you're associated with um so here's a here's kind of an off-the-wall question for you all right you met a lot of interesting people who\par

(57:39) is one of the most interesting people you've ever met and why oh that's that is really an interesting question um actually I could start in part and say you no okay so excuse me okay exclude me go go three three some some of the weird circles that you've you've run in because I saw photographs of you with all kinds of different people that are just internationally recognized well certainly Edward Teller uh that was a very interesting uh kind of meeting course Edward Teller is you know known to be the father of the h-bomb and at\par (58:25) the time I was investigating um vacuum Energy Zero Point Energy it's it's kind of an underlying cauldron of energy that exists even in empty space and so I was told that uh and he he wanted to get a briefing from me on it and so okay I agreed to do that so I went out to New Mexico where he was to give him a briefing and I was told in advance that when you're briefing Ed teller he will sometimes kind of drop his eyes and fold his hands and you'll be sure that he's fallen asleep but keep going\par

(59:04) he's not asleep he's thinking so no cocaine sure enough I swear to God he looked like he had fallen asleep in front of me but anyway I kept going suddenly he pops up his head and says okay so that means if you put a couple of plates close together like a couple of microns apart uh you'll get an attractive force between them from the energy in the vacuum uh it'll go as a fourth power inverse fourth power of this and it'll have a value of he actually worked out in his head as a math genius what it takes me a desk full of books to\par

(59:44) figure out and so that was absolutely it was just it was kind of unbelievable to me that somebody could have such a brilliant mind that he he could do that and so that that was certainly a a really interesting and and I love that story um that that I was hoping you'd tell that one but I didn't want to pick it for you just in case there was another one listen Hal thank you so much as always it's it's just a blast to spend time with you I I know that the audience out there uh has is it's just going to be\par

(1:00:26) energized by number one getting to know you just a little bit but also getting insight into your perspective on a number of the projects that to the Stars Academy has going on um

let me also thank our listeners out there who submitted questions and thank you so much for tuning in please be sure to subscribe to the podcast and if you enjoy it please rate and review the TTS talks podcast on Apple uh stay updated on our latest news and developments by ttsa by visiting the to the starsacademy.com website and sign\par

(1:01:04) up for our mailing list have a great rest of your day and thanks again for tuning in for more ttsa talks please visit to thestarsacademy.com\par

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2021 SCU AAP Conference Keynote by Dr. Hal Puthoff - YouTube\par

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Transcript:\par

(00:08) okay we're starting on the next session here the next session is going to be our keynote presenter uh i'm pleased to have uh dr hal put off uh he's actually dr harold put off but uh he goes by the name of hal and uh it's a very affectionate name and i'm just thrilled that we can have somebody of uh hal's caliber with us uh many of us have known hel for quite some time uh we've heard a lot about him i mean he's had a quite an exciting career uh with this whole thing i wish i were actually\par

(00:41) him i mean he's he's had some incredible uh incredible experiences uh and uh anyway uh i'm just glad to have him uh hal is the president and ceo of earth tech international and the director of the institute for advanced studies at austin uh the iasa uh he's earned his phd from stanford university in 1967 house professional background spans more than five decades of research at general electric sperry and the national security agency stanford university sri international and since 1985 as president of eti and\par

(01:22) director at iasa he has published numerous papers on quantum physics lasers and space propulsion and has patents issued in the laser energy and communications fields hal regularly serves various foundations corporations and government entities including of course the department of defense and intelligence community as an advisor on leading edge technologies and future technology trends was a senior science advisor and contractor to the dod's ossap and atip program and was a founder of the to the stars academy ttsa\par

(02:03) i'm pleased to have uh and introduce dr hal put off and how i'm turning it over to you well thank you thank you rich i appreciate the the introduction and also the opportunity to share my thoughts with members of the scu it's one of my favorite groups for sure so i'm going to hit the share screen here and hopefully that will take me where i want to go [Music] okay uh you should see my my starting slide is that uh showing up says uap studies managing the transition intelligence problem to scientific problem\par

(03:05) okay let's start with the intelligence problem as all of us or many of us who are attending this conference know for many years actually several decades the air force had a program to take in reports from the public and also from military people and try to analyze them and come up with some kind of conclusion and that was project sign project grudge project blue book and so on but eventually the air force kind of wanted to get out of it frankly so they gave a contract to the condon committee at the university of colorado\par

(03:55) and they did a year study and then they finally said science isn't going to be served by chasing this subject area so we recommend that it be terminated and so in fact in early 1970 it was terminated and then what that meant was that after that time if you were to call the

public affairs office at the in the air force and say well what's the latest with regard to ufo sightings it would turn out that uh they'd simply say oh no no no we we got out of that business in uh early 1970 uh nothing to see here\par

(04:37) uh we're we're not uh we're not investigating ufos anymore however that actually wasn't true it turned out that the very memo by general bollander that terminated the project terminated blue book project down in the frying print had a statement reports of ufos which could affect national security would continue to be handled through the standard air force procedures designed for this purpose so in fact the truth of the matter is the work did not stop in 1970 it continued in the shadows primarily in black programs not revealed\par

(05:24) to the public and it went on that way for some decades until finally in december of 2017 the new york times was able to come forth with a front page story revealing one of the programs that had been carried out in the recent years called advance aerospace threat identification program or atip this was a major story it sort of started the whole current media coverage that we've been seeing and of course as soon as that story came out mainstream press coverage was all over it and what was different this time was really the quality of sources going\par

(06:17) public in previous times if you had someone just simply saying they saw light in the sky or whatever uh you know the tin foil hat crowd label could have been thrown at it the subject was very stigmatized but here the quality of sources going public once this new york times article came out consisted of people like ex-senate majority leader harry reid who in fact was the one who set up the most recent program top top-rated f-18 pilots like dave fravor and so on who encountered uap at close range and a number of significant dod and\par

(06:58) intelligence community officials so suddenly we had some coverage without the usual stigma well what about this program atip actually it was initiated in 2008 under the acronym asap advanced aerospace weapon system application program but very quickly by anyone in the program we use the nickname atip advance aerospace threat identification program so that that's that's the phrase i'll use to describe it well the program was initiated by dia defense intelligence agency and they were concerned about threat\par

(07:40) from uap as they said crafts drones of unknown origin now what was different now as compared to earlier years is there are multiple surveillance and reconnaissance platforms of high quality and so true intelligence assessments could be carried out with really good data because we had excellent reconnaissance data coming in and the conclusion was that there appeared to be intelligently controlled mechanical devices uh capable of performing feats beyond current technological capabilities for example exceed the sound barrier without\par

(08:22) a sonic boom so this this is what caused the program to be set up now from the dia standpoint of course it's department of defense so their job is to defend the country against potential threats obviously they would have to be concerned about what could be called the current threat and that is this phenomenon is going on possibly for foreign derivation say the chinese are russian could include off-world no way to tell until it's absolutely nailed down and being globally deployed and tested including in the continental united\par

(09:05) states now that's kind of the obvious threat and you might think that that was really the threat of concern as it turns out that was not the most major current threat the major current threat was really future threat what if potential adversaries say the chinese russians whoever achieved significant breakthroughs and development of disruptive technologies based on their own evaluations of uap phenomena from sensor data or crash retrieved

materials that was the real concern for the dia that's what's in their remit\par
 (09:45) to be paying attention to and while they should be concerned about that uh in in the in the warmed up period in interacting with the soviets uh we were able to obtain a major document about the thickness of a telephone book showing that for example as early as 1991 they had a very major ufo investigation program going forward under the military unit 73799 it was a large scale effort i show this graph i recognize that probably won't be able to read the fine details in these in these blocks but basically i show it to\par
 (10:34) emphasize the fact that they had a number of military organizations a number of science labs a number of materials labs all cooperating together and collaborating to try to get to the bottom of understanding what the uap phenomena actually was so this is a serious effort for them and of course they're worried about the same thing we're worried about and that is suppose we make some great progress on the basis of materials or crash retrievals or just our analysis of the data they'd be worried that we could get the\par
 (11:13) jump on them so this went back and forth by both sides typically under black programs and of course now uh with all the news coverage that's come out in the last couple of years i'm sure many of us have seen interviews of commander dave fravor who talks about his interaction with the tic tac and again for those who say well can you really determine something from kind of a fuzzy video or whatever it's important and he's emphasized that when these events occurred there were multiple sensor platforms\par
 (11:54) recording this radar recorded its presence ir recorded its presence dave fravor had eyeballs on it even did a little semi dog fight chasing it and um so anyway that that's been now presented to the public and of course uh many of us are familiar with louis lozando who's had a lot of uh media coverage he was one of the last directors of the a-tip program and he felt that not enough was being treated seriously and so for that reason he left the pentagon in order to be more public about doing whatever he could to legitimize\par
 (12:45) the topic many of you are familiar with lou he was a keynote speaker at the first scu conference a couple of years ago recently appeared on 60 minutes so and on tucker carlson a number of times so he's out there doing what he can to get the word out lou is the person that toward the end of the program that i reported to so i know him very well now one of the outcomes of official legitimization and all this media coverage was for the first time the navy confirmed that the videos for example really are unidentified aerial phenomena\par
 (13:31) that's really a significant statement for example if it were let's say secret navy platforms drones whatever that they didn't want to reveal okay then they wouldn't they wouldn't reveal it but they wouldn't come out with a statement in the boldface lie to say they're truly unidentified so this statement that they're unidentified is to be taken seriously now as a result of all this public exposure the navy drafted new guidelines for their pilots to report the ufos as we now know if you've been following\par
 (14:14) the news pilots have been seeing ufos all the time over the last decades but by and large they didn't report them because they were concerned that they would lose their flight status be thought that maybe they were drinking or on drugs or something but now that this has all come forward it's now a requirement that they report what they see and so that's why even now a number of their reports are actually getting leaked out to the media okay let's get back to what the dia program was about and this is a transition from\par
 (14:59) the intelligence problem which it obviously is to a scientific problem the broad area announcement asks that this list of engineering aspects be addressed in this program the

contract monitor from dia brilliant physicist very smart guy i'd have to say he's one of us basically uh he recognized that what really would count to make any kind of progress in this area in addition to just simply collecting data on observations would be to try to actually figure out anything we could about the technology involved and so that's what the program\par

(15:47) was primarily directed toward now dia chose bigelow aerospace as a contractor to address the potential uap threat bigger aerospace established bass bigelow aerospace advanced space studies and hired uh you know some 50 investigators and so on i mean this is this is a big operation and bigelow contacted me at earth tech international and asked that i collaborate as a subcontractor which i of course agreed to do and so that's how i became a subcontractor and a senior advisor to the atip program so now because we have been and we have\par

(16:36) the remit to look at engineering aspects we now had the opportunity to manage the transition from the intelligence problem we can let other people worry about to the scientific problem which is of interest to us so let's start with a hypothesis which is exactly what i did let's assume materials are potentially available from uap for example a crash retrieval or if we don't have materials now we might have materials in the near future so let's assume that this is the case if so as you can well imagine\par

(17:19) it would be subject to high level security and compartmentalization not so much that it's to be kept from the american public but rather anything that might be learned in a program like this could be kept from potential adversaries who will be looking for clues uh to develop their technologies well how are you gonna handle that you got high level security compartmentalization be difficult for contractors that might be working in this area to obtain expert opinion and critical technologies you just don't call up your local\par

(17:54) university phd and say you know i've got a problem here i've got this chunk of ufo material i can't quite understand it would you take a look i mean it would all be out i mean that's the end of black program coverage of it so how do you address this issue high level security compartmentalization difficult for contractors to obtain expert opinion critical technologies this was the challenge that i was given okay my response to the challenge was pretty straightforward i said okay well let's commission white\par

(18:33) papers about all the from subject matter experts around the world unclassified and simply ask them where their particular aerospace related subject area would be in the year 2050. i represented it as a general survey of aerospace futures of course i didn't say you know this is really to help us out with the ufo program no i just simply said this is a general survey but these are unclassified white papers so i could go anywhere in the globe and i did i mean some of our best papers on invisibility for example came out of\par

(19:11) scotland and i told the people that i contact contracted to develop these papers that they were free to publish their results in in physics journals that'd be just fine so i let out 38 contracts over a two-year period i'm going to show you the topic areas that i covered these theories that i considered significant and that i thought we should get our best evaluation of and you can see even talking about things like wart drive space diametric engineering traversable wormholes i mean we weren't just digging around\par

(20:02) the edges we were basically going for the juggler to the degree that i thought we could we could do it here's another set of papers the high-energy laser weapon one was classified but the rest the rest were unclassified pushing the envelope negative mass

propulsion whatever anti-gravity for aerospace applications as you can see we really wanted to cover the very edgy topics but since we were going to experts and asking them where their subject would be in 2050 we were giving them permission to extrapolate to think out of the box and that's what\par

(20:49) gave us really good data another set of papers this is uh some summarize some sums up the 38 even field effects on human biological tissues where there have been interactions that might have led to injury or something so anyway there we were what do i do with these papers well i wrap them all up bundle them all up and send them back to dia and they're put on a pentagon server called jwix defense intelligence reference documents durs as we call them these were then accessible by contractors by the intelligence community by dod personnel\par

(21:46) but they were not released to the public uh that was not the case here now i'm told that this set of 38 papers basically became the best seller in the pentagon jaywick system for some time so it was a very high quality set of papers and people from all different kinds of areas accessed them and were interested in them even if they weren't particularly interested in the uap phenomena now recall i said that these were not being released to the public however as i mentioned i told the individual authors that they\par

(22:31) were free to publish their results and so if it turns out that you have interest in any of the subjects that i've listed here if you go to the documents section of the scu website you'll find the list of the papers along with the authors and their academic positions or whatever and so feel free i encourage you to contact them in any areas that are of interest to you and see if they'll share what they developed in developing these papers now to give you an idea of you know what kinds of topics were covered and how\par

(23:12) thoroughly were they covered i'm going to give an example in space time metric engineering i use this example because actually this is the paper that i wrote for this series of 38 papers and the challenge that i gave to myself was can reported anomalous observations of uap be accounted for on the basis of known physics and apparent reduced inertial mass right angle turns and high velocity and so on and generally if you're listening to the news um tv interviews and so on it's always emphasized that this all\par

(23:51) seems to be so well beyond any kind of physics we could imagine but actually because the approach i took my answer was to the question can report anomalous observations be accounted for and based on new physics my answer was yes and i'll show you why i say that what i used was an engineering approach to general relativity which is kind of an unusual flag to carry of course we know maxwell's equations give us electromagnetism and then by engineering the equations of electromagnetism we develop wi-fi radar tv whatever\par

(24:37) well einstein's equations are sort of like maxwell's equations up till now they've been used primarily by astrophysicists who are working out the consequences of the merger of neutron stars or whatever but anyway there's a space time metric that comes out of einstein's equations and so the question i posed to myself was well can we engineer the space time metric for interstellar flight at least in principle even if we don't have the energy or technical tools to do it at least what do the equations say is\par

(25:10) possible and so in examining uh einstein's equations i was able to find out that in a certain select set of conditions effects that seem to correlate with uap observations could come out of solutions of einstein's space time metric equations here i've got in terms of a particular parameter kappa but under the right engineering conditions you could reduce your

mass you go faster in the speed of light get repulsive anti-gravity forces just what you would like to see the way i arrived at this was that i took a sheet of paper\par

(26:03) and left hand side i wrote down what are all the claims that come out of observations of uap and i wrote down on the right hand side of the paper what are all the effects you might expect to see if you engineered the space diametric and they fit together hand to glove i'm going to throw in one high-tech slide here for the general relativity buffs in the crowd where i specifically list the space diametric components if you're interested as i said we were permitted to publish our papers so i published this paper in\par

(26:41) a journal peer-reviewed and it's posted on the scu website in the document section so if you're into this kind of thing feel free to take a look and what kind of predictions do we get out of it well what about the velocity of light constraint you can't go faster velocity of light well that's a statement of special relativity not general relativity and we hear about wormholes and so on well to an engineer the speed of light is given by that equation there c is one over the square root of $\mu_0 \epsilon_0$ the\par

(27:17) permeability and permittivity of the vacuum so in space diametric engineering you go in and you simply re-engineer μ and ϵ to be much smaller which means that in that region of space c is much higher and therefore zipping across the universe and a wormhole is not in principle ruled out and i'm talking science fiction here i mean this is academic textbook stuff that general relativity people investigate all the time so that could handle the issue of well they're so far away how could they ever get here\par

(28:01) another consequence of engineering uh space time metric under conditions that would lead to the kind of effects that that we think we're observing is that there tends to be a blue shift what do i mean by that i mean in the rooms where you're sitting right now you don't see most of the electromagnetic spectrum it's in the infrared it's in the heat spectrum what we see with our eyes invisible is a relatively small part of the em spectrum but under the conditions in which space-time metric has been engineered to\par

(28:35) produce the kind of effects you might expect to see in the uap you get blue shift which means first of all some of that infrared is going to be upshifted into the visible part of the spectrum and so you'd expect craft to be actually quite bright which is one of the things that in fact is reported well way we could check that out uh set up some spectrum analyzers and see if you record a blackbody spectrum that's been blue shifted so that's a challenge i give to the spectrum analytical crop and of course with this blue shift\par

(29:19) there's a prediction of near field exposure injuries for example the visible can be blue shifted up into the uv and you get sunburn injuries often reported by people who claim to have encountered a powered up craft at relatively close range or if you're too close i can even some of that visible spectrum which ordinarily isn't harmful can be shifted up into the soft x-ray region and you get radiation injury uh cash landrum case for example uh you know could fit into this category so there are specific predictions\par

(29:57) in fact during the atip program we took a look at some data that came out of clarissa island investigation in brazil 1977 78 there's a tremendous amount of data collected by the brazilian air force thousand pages of documents photographs film physiological effects it was like scenes out of close encounters is the third kind so we collected up all that information and examined it and i'll just give you one one graph here about it where we listed the medical injuries and some of these same responses to claimed encounters at close\par

(30:47) range do correlate with what we've seen in in some cases that we investigated so

that's that's a prediction that comes out of space time metric engineering [Music] and by the way it isn't that i thought of this all by myself it turns out that there's an excellent book that most people in ufo and uap investigation seem to have overlooked is called unconventional flying objects written by paul hill who's the chief scientist manager at nasa langley research center he came up with the idea that in order\par

(31:28) to match into the observations the craft must have what he called a direct acceleration field and uh when you read his book you realize it's what today we would call metric engineering it says gravitational like in nature gravity canceling it would permit hundred g's relative to environment accelerations without any onboard high g forces you could get supersonic flight to the atmosphere without sonic booms which is one of our observations and he did detailed calculations and computer simulations to show\par (32:05) that with this metric engineering approach you end up developing subsonic flow patterns of streamlines so you prevent shockwave drag you prevent aerodynamic eating just exactly what seems to match into the data he predicted flight profiles that matched observations and so we came to the conclusion that uap appear at least some of them appeared to be engineered platforms uh on the order of 30 tons i think you got that number from some dents and some railroad tracks demonstrating 100g accelerations 9 000 miles per hour in the atmosphere\par

(32:48) well of course as you can imagine while he was a chief manager at nasa no way he could he could uh publish his book back in those days it definitely would have been a killer for his profession but he arranged that the book would be published posthumously and so i highly recommend it if you haven't seen the book please please get it and read through it it's very detailed a lot of graphing a lot of excellent work now based on all of this of course i and my colleagues have not been quiet about it uh we've listed uh\par

(33:31) and provided i listed a provided number of briefings to the senate armed services committee the senate select committee intelligence briefings carried out by myself by lou elizondo who as i mentioned earlier is the retired director of the dod's a-tip program chris millen a long career as deputy assistant secretary of defense for intelligence so he has really good connections into the congressional committee and so he's been very active in briefing senators and congressmen my colleague eric davis who is my chief\par

(34:12) science officer at earthquake international and so he's been involved in a number of these briefings so a lot of briefings have taken place behind the scenes now as we've heard from what rich said earlier the pentagon has set up a uap task force it was requested by selects senate committee for intelligence senator marco rubio who's the chairman of it it was actually established and approved by the deputy secretary of defense norquist so this is finally getting treatment at the high levels where it deserves to be\par

(34:57) evaluated it's led by the navy under the cognizance of the under secretary of defense for intelligence it was created to improve quote understanding of and gain insight into the nature and origins of uap the mission is to detect analyze and catalog uap that could potentially pose a threat to u.\par

(35:26) s national security that's the pentagon's requirement and they were told to submit a report within 180 days to congressional armed services committee supposed to be a broadly available unclassified report with a classified annex and that's be if they if they keep to their uh deadline that should be coming out uh before the end of june so we'll see what what it says and that's being taken seriously all over the globe uh here's a major document that

came out of the israeli think tank the bagan sadat center for\par

(36:06) strategic studies where they outline whatever has been released so far about the pentagon's uap task force and of course recently just in the last few days we've seen additional press coverage in the new york times about the upcoming release of this report so it's definitely got everyone's attention so what does that mean for the uap topic i think we can finally celebrate that the uap topic has come of age the former stigma is significantly reduced the major factor i think is due to the increased sophistication of surveillance\par

(36:48) platforms uh one of just observations or a quick photo you know reason to be not so sure but now with our unbelievably sophisticated surveillance platforms getting data from multiple sources all coordinated and collaborated you just can't set these observations aside so the data that even that's now publicly available lends itself to analysis and engineering evaluation as i showed with regard to the 38 papers at least addressing topics that would be of significance for this area therefore i think our scientific and\par

(37:39) engineering community can legitimately look forward to significant progress in our understanding of the uap topic as the future in falls and our society for that we have here the scu and mufon and other areas beginning to make their contributions i think we have a very rich future coming along in which this topic will be treated seriously a lot of the stigma will be downplayed and so it's going to be an engineering topic of great interest to all of us and i saw even just today in the news that the chinese also had their own\par

(38:24) uap task force set up to try to understand what's going on so this this is a subject that's finally come of age and i think we're going to hearing a lot about it and we all have an opportunity to contribute something of value so that is my comments and be glad to take any questions hey uh one one question for hal this is joe donato uh can you can you talk a little bit about the calaras event in brazil obviously at the unclassified level but uh is there any any perspective or additional context you could offer\par

(39:13) about that event that you could correlate with say other cases that may have taken place uh in in europe or italy relative to uh directed energy capabilities or any kind of similarities between that event in brazil and other events in other places i think the answer basically yes as you saw in my graph there's an enormous amount of data and it lasted over a couple of years we actually met with the general from brazil who's in charge of seeing all this get evaluated and because there was so much apparent direct\par

(40:06) interaction in many cases between the uap phenomena and some of the civilians there living on claris island that's why we got in addition all of the medical data about potential damage to people so in our case we had medical doctors who you know have access to studies carried out in various u.s agencies and scientific groups like los alamos whatever in which there have been a collection of data typically done with animal studies and so on which show what kinds of injury you might expect when getting too close to let's say what\par

(41:08) i would say is blue shifted uh infrared i mean up into the microwave and low x-ray region and so on and the data from any studies where people have for example accidentally gotten exposed to high-intensity microwaves or whatever and then looking at the data out of the claris incident our medical investigators said that looks looks pretty pretty correlatable and so in fact uh you know some of the people that are involved in those studies are also involved in looking at additional data from you know what we call the havana\par

(41:51) syndrome and so on so it does seem like it's all of a piece uh i don't think we have the answers finally nailed down for sure but there does seem to be at least relatable elements of

all of those studies the next question folks i'd like you to be able to use the question and answer in hoova uh please direct your questions there we're going through them and giving them out uh as opposed to doing this so we want you to hit the people there's a lot of people that have already put in questions ha\par

(42:28) here's one wouldn't it be the right time to bring in the russian and chinese scientists as well i'm convinced we can learn a lot from their history in the uap ufo or the uso research well it's it's a double-edged sword obviously having people present their sightings from other countries and what kind of data they've collected would certainly be of use to us but of course if you have that colloquy we're going to have to share some things that we've learned and of course that's that's what's a\par

(43:03) great concern at least in the dod and intelligence community and that is they may be missing a critical piece of data to make some giant step forward and we just happen to have that particular critical piece of data and if we shared it with them that would be a problem so on the one hand certainly at the unclassified level uh if we can find ways to collaborate with representatives of ufo investigative teams in china and russia i think i think it would be a move in the right direction but it would have to be handled very carefully\par

(43:44) agreed the dod definition for threat includes elements of both intention and capability assuming the capability has been adequately demonstrated by recent videos then what remains to is to determine intention but if we do not know what these craft are or who or what controls them then how can we begin to assess intention what would it what would be the criteria is it merely that they have yet to to do harm well one of these sort of signatures which i think you mentioned earlier is the fact that a lot of the uap observations have been near our\par

(44:28) nuclear facilities and specifically as has been reported a wonderful book by robert hasting on ufos and nukes some of our nuclear silos have been turned off and we happen to know that the same thing has happened in the former soviet union so when you look at that and you say okay what does that mean in terms of threat well one way to interpret it is that they're good guys and they're just letting us know that if we get too frisky down here and decide to have a nuclear war they can turn it off on the other hand if they're bad guys\par

(45:13) you could say okay before they're just the reconnaissance group to check out whether they can be sure to take out our nuclear defense when the armada shows up so of course intention is everything and at this point as far as i know we don't really have a clue we read all the tea leaves to try to figure out what it is so that that that's it's still up in the air and that's why uh i mean fortunately at least we haven't had a lot of uh shoot downs of american craft or other country craft chasing ufos so that that's somewhat uh\par

(45:59) encouraging but it's really intention is sort of the big topic of interest that we really wish we could get to the heart of and we're not there yet so it's it's uh up in the air but there's no doubt that the correlated sightings are definitely uh seem to be tracking our military elements uh i'll go ahead and stop sharing your screen if you can just so we can see you and i'm gonna get the next uh next question here just a moment okay let's see we get to see you come back here online\par

(46:44) you should have a stop screen sharing at the top of the screen top of the screen yeah oh stop share there you go stop share now we should be able to see you uh okay so uh the next the next question that we got here is do you have a do you have a working hypothesis as to how these craft navigate while encompassed in the field uh let's see i heard some other

voices behind but i did too please if everybody would go back on mute i don't need to have you on here because it's it's going to switch around\par

(47:30) all right so again i'll go back to seeing if i can restate the question do you have a working hypothesis as to how these craft navigate while encompassed in the field given proposed electrogravitic effects or fields effectively remove the interior craft devices from the local space-time to first order i'd say no we have not figured that out on the other hand there are certain elements of of what it's like if the if the model is correct about you know space time metric engineering inside the craft everything is working\par

(48:12) relatively normally it's just that when they look out they see the rest of the world in redshifted and moving in slow motion so at least in terms of detecting their environment uh it's it's pretty reasonable uh you know what what they would be able to see now i know that in in investigating things like super luminal travel and wormhole travel you get into the whole thing about uh well can you get ahead of that in order to uh direct yourself and so on and that that those are questions that are still being\par

(48:48) investigated by people doing various general relativity models but on the other hand there's a kind of a simple side of it and that is the people inside the craft if there are people in the craft uh to them things are very very normal uh so even though from the outside we say oh you know why aren't they fried by the blue shifted uh radiation and so on well it's that under this model all their atomic structure and chemical elements are also all blue shifted so relatively speaking to them they're in a kind of a normal\par

(49:25) space okay uh next question would be with regard to intention it would be important to know who they are and where they are from what can you say about that i can say i don't know the answer to that all right uh hi the subject of this conference is compelling i just want to know if there will be some mention to the supposedly big declassification of ufo-related documents by several u.\par

(50:02) s organizations after the law signed by former president trump and enacted in last december i really have no clues about what would be disclosed but general media and ufologists keep saying that the big thing is coming what are your thoughts about the big thing from my contacts and so on i think although there will be enough information coming out to finally later rest that this is not a tinfoil hat subject and there's reality to it and the government is making a concerted effort to to learn more about it i think any truly deep state\par

(50:51) increased knowledge is likely not to come out i don't see all the barriers falling understand uh let's let's either get on with it or allow the question to fade away as it deserves the answer is either yes or no does the us government agency example nist or department of energy dod or any private u.\par

(51:19) s company organization or any similar entity anywhere else in the world have in its possession one or more vehicles in whole or in part built anywhere other than the earth [Music] i cannot comment on that okay for the entirety of your paper oh excuse me let's go back to this this just jumped on the screen for the entirety of your paper you're differentiating between altered space time due to a typical seller mass versus space time engineered by an advanced craft yet in the time alterations section are you suggesting that a craft could\par

(52:02) engineer both a time slowed condition giving an individual the experience of missing time as well as the time sped up condition can you elaborate on missing time yes in fact i addressed that in my paper so you could check that out because basically if you're able to

change the temporal aspect of your surrounding space you can either speed it up or slow it down and one of the off one of the reports often that they come forth people say well there i was i was close to a craft and suddenly all the sounds of nature the\par

(52:46) birds the wind you know i didn't hear anything well if time has been slowed down in that area and has gone into infrasonics so that you wouldn't hear it that's one of the elements that you would expect to to experience and so then you also have obviously both kinds of things where you would interpret it as missing time because suddenly when you if time got slowed down so maybe you might be let's say in the crafts slowed down vicinity and for five minutes or whatever but meanwhile outside several hours have\par

(53:28) gone by then when you emerge you say oh my gosh i've got missing time it might not be that you actually missed any subjective time it's just one of the consequences and i i discuss the details of that in my paper all right uh next question is is there a particular interpretation of the quantum measurement problem that fits best with the work you've done thoughts on boom well i'm i'm i'm i'm in a fiction out of uh bohm's general approach and um but uh that that all has to do with you know\par

(54:09) quantum effects and so on and in pursuing the kind of models i pursued for the uap it's been general relativity of course and so general relativity and quantum theory have have not locked hands yet so even though for other reasons and for other technologies that i'm involved in i'm a big fan of boom and taking into account quantum effects i haven't seen the connection to the uap area okay uh dr puthoff uh one of the dirt reports was published in the open literature by professor winterberg at unr in it he goes into great length about\par

(54:53) possible ways to mine exotic matter caught in the moon's gravity well yes what was your opinion on the paper and can you comment on its focus on the moon well certainly uh the general subject was uh exotic matter negative matter and so on and and winterberg is absolutely a top physicist he's a student of heisenberg in the old days and he's been part of weapons development programs and so on so so he's somebody you you take seriously but in this paper he was certainly extrapolating you know kind of way out there\par

(55:36) because as far as i've i know even in talking with him there hasn't yet been any evidence of that kind of matter being available and then the particular application he thought of with regard to the moon struck me as being really on the edge so i i don't really have any further commentary on it here's a statement or a question would nasa's recent statement and interest to now study this phenomena be redundant if not is there a specific area that you would recommend that they focus their efforts on\par

(56:18) well in in the in the public uh unclassified uh menu there are a number of claimed pieces from various craft from crashes or you know one was shot off decades ago that has pretty good credibility and so on so i think setting up a materials lab would be the best and then secondly if there's any evidence of bases on the moon they might have picked up that would certainly be an area of interest i don't know the answer to that by the way only you know rumor and claims so so anyway i would say materials and any observations that show up in any\par

(57:07) [Music] tracking of various environments those would be the two main things um isn't it going to be very difficult to make meaningful scientific progress in this area so as long as as it's controlled by the national security concerns well as as basically i was addressing in my paper that there is a problem because um even if you've got some really good data that you feel you can't share the national security concerns really holds back the scientific

enterprise fortunately though i think things are\par

(57:46) warming up you might say and and now that the stigma has been reduced significantly i think there are more cases that will come forward and more examples of possibly materials will come forward so i i think that real progress can be made even despite the fact that there's a large national security uh significance to some elements of the subject um i guess the question uh this is an interesting one uh that i've you've often pondered and you probably might be aware of it but anyway uh do you believe that the three navy patents by dr\par (58:28) salvatore cesar piece the so-called ufo patents represent any true uh technical breakthrough i have no evidence that they do i mean some of the concepts involved uh that that he laid out have a certain resonance with uh some of the concepts that i consider but to the degree that there are claims that it's been observed in the laboratory or technologies have been built to demonstrate those effects i have no evidence for that and i think that the navy has pretty well retracted and i don't think it's just a cover-up i\par

(59:09) i think it was correctly retracted uh there's a it says reporter here hi everybody uh you touched on this today in a cursory way already but from speaking with dr wells the author of the pulsed high-powered microwave technology paper expressed surprise to me about his work being included in this list of dirties so i'm wondering specifically how researchers scientists and engineers were approached and contracted to produce these i can tell you exactly because i wrote the contract and basically uh and by the way\par

(59:50) in response to what well said i have once of course we thought this would never particularly come out as being part of a uap effort and so once uh once senator mccain i think was arranged for those lists of papers and authors to be publicized i just i really cringed wanted to hide below my desk thinking all these people are going to contact me and say what you didn't tell me okay what i did was i said i'm basically representing bigelow aerospace who's an aerospace company and you know moving forward into the future\par

(1:00:29) and we'd like to do a survey on where your particular area might be uh you know by the year 2050 and this is just to help guide investment and technology development in the coming years so the bigger aerospace can be right the tip of the spear in terms of beginning to explore space and so on so so that that's all they were told that it was a survey for an aerospace corporation uh thank you uh isn't it time for science to re-evaluate steady and change focus on the future research in this area well i certainly\par

(1:01:14) have that viewpoint and i'm glad to see that seti some seti people have begun to consider uh archaeological setting that is are there any evidence of let's say materials possibly on the moon or on mars and so on not just looking for signals i've i've always been pretty skeptical that velocity of light transmission signals were likely to be very effective if for no other reason almost certainly to be encrypted and everything else so so no i i think seti really has to expand at least uh you know professor townes charles townes uh laser\par (1:02:03) inventor uh said well should at least expand beyond em and uh include looking for laser signals so that that was optical seti that was a step in right direction but but i think uh also the idea of looking for say molecules and other genetic structures that may be somewhere in the earth that might show some different kind of pattern that you might be able to claim was et related that that kind of so so if seti is broadened to include all possibilities and and if they eliminate the idea that well they never came here\par

(1:02:50) then i think seti could make some real contributions per your paper presented is the manipulation of the metrics associated with the theoretical alcubierre drive essentially

creating a finely tunable wormhole depending uh on intensity of warp field generated behind an object in the warped field well that's one that's in fact that's one example i i give in my paper but uh since his original publication of uh the alcubierre warp drive there have been a number of papers by i mean well over a dozen of different\par
 (1:03:31) kinds of both warp drives and wormholes and my colleague eric davis has become a super expert on on that kind of thing he's right there in huntsville with the aerospace corporation you might you might talk to them so that that that's an example and it looks like it's not an example that is likely to be engineered and there's some problems with it but some of the additional papers that have taken off with that as the guiding principle are well worth taking a look at our tic tac type phenomena being seen in\par
 (1:04:08) other countries right now [Music] uh yes they are and um and just recently lou elizondo brought up another point which was that back in the 50s tic tac exactly tic tac that looks like a giant tic tac had been reported and so he recently i guess i guess his might have been on tucker carlson recently last couple of nights he showed this paper from the 50s generated by the military it had been finally declassified in which they saw precisely the tic tac shape based on your extensive study of uip is there any one theory of their origin\par
 (1:05:04) that you think is more plausible well it's it's a it's a complex question and i've got a complex answer and in fact i wrote a paper which i haven't published called the ultra terrestrial hypothesis and so i listed what are all the options okay obviously it could be something by one of our military groups here on the planet well that's not standing in very strong legs these days well suppose there's uh somebody arriving from a far away solar system well that's the standard et hypothesis\par
 (1:05:53) but you know maybe there's a group from the middle ages that happened to stumble on any gravity and they built a lab you know in the himalayas somewhere and it's a terrestrial group and they just happened to discover that or maybe some metis landed here uh 50 60 000 years ago and they're just hiding out and not making themselves particularly known and then suddenly when we're dropping atomic bombs and polluting the environment then we're messing up their environment as well as our own so they decided to come\par
 (1:06:29) out of hiding a little bit i mean there's there are all these possibilities so i think in fact what i recommend in in the paper that i wrote was that we should forget the science for a while and really get detectives to work following gumshoe kinds of aspects to determine of all the possibilities and of course we have jacques valet who says you know maybe they're involving additional dimensions and so on so so i think all of those should be on the table until there's enough data to take them off the table\par
 (1:07:05) my personal viewpoint is i well i've been i've got mixed opinions i tend toward the et hypothesis but that's just barely above some of my other hypotheses if if blue shifted light is coming out of the uap presume presumptively there is a light source on the uap that is being blue shifted if we limit to night sightings if we're limited then this the number of photons would not increase but just blue shift what would be producing the original light source before the blue shift well for one thing simply the heat spectrum\par
 (1:07:53) of the craft and the craft is let's say in our atmosphere and probably has a temperature not that much different from from the surrounding atmosphere and if that gets blue shifted then you see pretty strong visible light due to the blue shifted infrared spectrum so that would be that would be one thing in terms of you know sending out beams i mean if they wanted to signal someone on the earth they could send out what to them would be

[Music] let's say an infrared beam knowing it would be blue shifted actually actually uh\par
 (1:08:42) whatever light comes from a craft would be blue shifted so you could arrange whatever you wanted if you have control over what kind of optical signals you're emitting is it conceivable that most or all of the uap are van newman probes possibly capable of self-replication and that they're innocently observing us uh if so then might the risk be and only an annoyance say we choose to formally acknowledge them then all three billion of them did decide to say hi but uh that way they say hi is to disperse themselves hover at fifty five\par

(1:09:27) hundred feet and hang around for eight years [Laughter] well i'd certainly go for that i mean you can't rule out von neumann probes i mean that's that's very uh sophisticated but you might say realistic uh kind of thing to think about and if they're self-replicating uh they can certainly account for warranty many them on an international level that would allow for people who are you know as opposed to this like you know each country doing their own thing with national security how do we get beyond that and get into\par

(1:10:13) the uh the like this international working group i certainly think that's a great idea and i would encourage it and uh you know the scu as an organization who in accordance with your map has brought together at least interest from from countries all over the globe i mean the scu could be just such an organization i know mufon tries it and has had some some carry weight there but anyway i think i think would be a good idea and certainly uh specifically in the atep program we went out of our way to interact with people from various\par

(1:10:55) south american countries and so on and so getting a collective global group to address it in common and begin to share whatever particular pieces of data they have i think that would be great i mean we learned a lot from the tehran incident where the tehran fighter pilot headed toward a ufo and then had his weapon systems and communication system turned off but the rest of the plane operated correctly and that you know these events that are happening around the globe interacting with different forms of the military and so on\par

(1:11:38) definitely anything we could do to promote that i would be all for chocolate by the way jacques villa yeah acting with the french group japan and so on has been very strong on that issue great uh did you ever get a chance to read uh and if so do you have any thoughts on ning lee's 1993 paper on gravity grab a gravito-electric electric coupling via superconductivity well i certainly read all of her papers i also participated in the mitre conference where she made a major presentation and originally i thought you know she may\par

(1:12:23) really be onto something but the fact that it hasn't particularly gone anywhere and some of the critiques that have been published from a scientific viewpoint i found kind of compelling so it's definitely in the gray box on the shelf same with the padlet off results from russia uh ufos appear to be interested in our technology are there potential concerns for ufo encounters that should be considered during the upcoming efforts to colonize mars i can imagine that if ufos are spotted on mars by colonists this could induce a great deal of panic\par

(1:13:07) [Laughter] well it would be nice if we're going to run into denizens there that we would have some kind of interaction and protocols before we got to that point so that's what i would hope that people would be thinking about and working on a peer-reviewed and or published papers typically require extensive corroborating data and reproducible experiments for field experts to then verify you noted that some of the data used for the dirt papers did you you or others conduct any controlled experiments to verify any of\par

(1:13:50) the paper's proposed hypotheses or are these uh the results of just physics and mathematical deductive reasoning well several of the papers for example i'm thinking of mhd paper out of lucky martin paper on capacitor energy storage and so on there are several papers in that group of 38 that are actually the results of years of laboratory experimentation and data collection and it's presented in those papers so the papers aren't all just you know wishlist kinds of edgy uh proposals several of the papers have\par

(1:14:38) a lot of experimental data involved so you'd have to go paper by paper but some of them are really quite detailed have been published in the peer-reviewed literature have had replications in other laboratories that are referenced so it's uh it depends on the paper uh how of late it seems that there's a concentration of of cases right now that are coming forward uh made by on u.\par

(1:15:10) s military assets do you feel that this is the case or do you believe it's a matter of reporting or disclosure in some of those countries i mean what's the focus here why is that suddenly happening well i think that for whatever reason the uap phenomena is highly correlated with and concentrating on military and military-like and space and nuclear facilities why that's the case uh i don't know i'm not sure if anybody knows but definitely that it's it's not just selective reporting i mean that does seem to be the case and\par

(1:15:53) of course that's why there's such concern behind the scenes on what the significance of this really is in uh in 2021 balbrick and martier published in the journal classical of quantum and journal classical and quantum gravity about the possibility of positive energy uh physical warp drives as a shell of regular or exotic material moving in inertially with a certain velocity therefore requiring propulsion requires propulsion of subliminal some limitat spherical spherically symmetric warp drive space times do you think that this approach\par

(1:16:40) can be valuable well i think exploration of all of these approaches is valuable and and from the math and the theorizing outcome predictions and then those predictions if we have an opportunity in the lab or an opportunity in seeing uap uh in the vicinity we might be able to check out whether those predictions are valid so i think all that kind of work is is certainly useful okay let's see um have uh have these objects convincingly demonstrated any kind of telepathy or psychic uh activity in other words is there any\par

(1:17:29) connection to that i know that you were heavily involved with like the remote viewing type of thing and some other kinds of studies and stuff like that do you see that there's any connection between the objects and anything of that nature well certainly there's a lot of reporting of people claiming those kinds of experiences where they have interacted with some kind of being and the interaction was telepathic so as far as i know it's not pinned down in the scientific sense that that all of us at scu would like would\par

(1:18:12) like to see but nonetheless given that there's so much of that kind of reporting going on i and others have given thought to what kind of mechanisms would be involved and um you know we we've done some modeling and um i'm pursuing some communication quantum communication technology that you know may have a relationship so i think it's a fruitful area to think about and to try to gather data on and but in terms of its relationship to uap phenomena it's uh it's still sketchy at least from a scientist's standpoint\par

(1:18:56) um just a question here that uh it's been plaguing me too is it it seems like all the the recent sightings and stuff like that have always been with the navy and it seems to be that they're taking the lead right now with the dni and everything else the united states air force is responsible for control of our skies why is it we don't see anything from them you know

actually i know that that's a good question and i actually don't know the answer i know that the navy has been you might say more active and\par

(1:19:34) pro investigation for a long time and certainly recently it's been the navy pilots that have had the the primary viewings as far as we know so i don't know whether that means the air force has some equivalent and they're just not wanting to get on the public bandwagon about it or maybe for some reason with a lot of the uap coming and going from the ocean you know maybe it's more of a navy thing so i don't actually know the answer to that okay and we have like about one more minute and i'm just going to ask you\par

(1:20:16) this last question here do you believe that there are any current craft that uh have the properties of the tic tac objects and our human groups that can take e.t home i think that's referencing you know the referencing ben rich's statements yeah ben rich's statement i'm skeptical i mean i can't absolutely write it off but with whatever access i've had and of course everything is still very stove stove-piped so it could just be that i don't have the access but i haven't seen any evidence of that\par

(1:20:53) sure well this has been quite uh interesting and you've extended your stay for a very long time and i certainly appreciate it and there are other questions that people have there that we didn't get to but i wanted to be able to uh say thanks to you hal for all the work that you've done on this the support you provided for the whole you know uap equation i'm getting you've been advancing it from day one and uh and i just want to say i'm going to applaud you for for doing that and and we i think we\par

(1:21:26) should all be applauding hell i mean to be honest with you and if you're doing it at home great please do it loudly uh but you know thank you for uh all of your your significant efforts and we we probably will be seeing a lot more of you uh in the future as well and uh anyway thanks for your time we're gonna be moving next into a uh kind of a panel and and hal if you'd like to be on the panel you can just stick around i mean we're gonna it's gonna be a panel we're to talk about some of the currently going on uh\par

(1:21:58) things that are going on uh in the in the world right now uh so feel free to to hang on and be uh one of our panelists if you're if you're available okay well i appreciate first of all i appreciate the uh the invitation that you gave me to to come and speak to this issue and uh i'm really enjoying the opportunity that in fact scu has been set up to where we could have a forum to discuss these kinds of topics i mean i i think you deserve a lot of applause also for uh setting up this kind of a situation i\par

(1:22:31) mean it's it's it's really unique and i i think it's just terrific so how do i uh get to the panel well all you do is just pretty much just stick on and uh we'll click on that going to the next session here i'm going to stop the recording of this one and then we'll begin the next session all right so on your agenda there you just just pretty much hang on all right thank you thank you hal thank you\par

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Hal Puthoff Presentation - UFO / UAP Threats and misinformation - YouTube\par

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Transcript:\par

(00:00) i'm going to go along in a rapid clip i've got a lot of information here so here we go the sse is no stranger to the subject of ufos unidentified aerial phenomena is just a new acronym

for ufos back a couple of decades ago peter sturrock one of our founding members of sse arranged with rockefeller to hold a week-long workshop at the rockefeller residence where we brought in the best of the ufo researchers and then a panel of independent experts and had a week-long discussion of physical evidence related\par

(00:49) to ufo objects of which there's there's a significant amount of data and lawrence rockefeller hosted the whole thing it was it was a wonderful meeting eventually uh after publishing in the sse journal peter sturrock put together a book the ufo enigma and it is still one of the best books you can find out there to take a look at what are the physical aspects of ufos that researchers have uncovered however of course the government also is no stranger to the ufo phenomena anyone who follows a field would be familiar with\par

(01:31) project sign grudge and blue book but in 1969 the content committee shut it all down and said really we don't need to be involved in this area anymore we're we're not learning anything we're not getting anywhere it's not clear that this is a significant area and so for the average person on the street that's when it all kind of ended at least serious government interest in fact that's not true the very memo that shut down blue book written by general bolender had as part of its language reports of ufos\par

(02:11) which could affect national security would continue to be handled through the standard air force procedures designed for this purpose nonetheless as far as the public was concerned that was it i mean even the air force public affairs office put out circulars all the time in response to questions saying no well we gave this up in 1969.\par

(02:36) what in fact did occur was that there were programs going on behind the scenes anyway as required by the belinder mineral now most people didn't know about these programs they weren't advertised they weren't responded to foa requests usually went dry but that all changed last december when the new york times published a front page story on how there was this program investigating this area advanced aerospace threat identification program it was deeply buried but new york times had good sources and they came up with information about\par

(03:18) the program and so there's been a lot of publicity about it since the new york times broke the story washington post cnn fox news has been picked up all over the place and one of the reasons why it's attracted attention at this point are the quality of the sources going public ex-senate majority leader harry reid is the one who initiated the program top-rated f-18 pilots who encountered advanced aerospace vehicles at close range were permitted to come forward and tell their stories which up until now they hadn't because\par

(03:58) they didn't want to lose their flight status by reporting what they had found at least publicly and a number of significant department of defense and intelligence community officials have come forward to talk about the reality of this phenomena and the fact that there were programs going on the program was nicknamed advanced aerospace threat identification program atip people have trouble trying to get documents out of the pentagon by saying they want all documents in atip and they have a hard time because that wasn't actually the name of the\par

(04:34) program that top name there is the actual name of the program but atip was with the nickname that it went by it began in june of 2007 defense intelligence agency was concerned about the fact that obvious observation had shown that advanced aerospace vehicles crafts of drones of unknown origin were flying all over the united states over waters in fact globally is the case and so a congressional budget was approved to address the issue behind the scenes

center majority senate majority leader harry reid from nevada was the one who\par
 (05:17) was the initiator of the program joined by senator enuay and senator stevens these are the people who generally approved programs that were in the black under high security behind the scenes and so they set up this program senator reid has not uh walked this back since all the news came out he's been very forthright and given a number of interviews this particular statement sort of captures it all we don't know the answers but we have plenty of evidence to support the questions this is about science and national\par
 (05:55) security if america doesn't take a lead answering these questions others will well there's a twofold nature of the threat first of all you've got these advanced aerospace vehicles flying around that we don't know where they come from who's driving them what the intent is possibly off world even but the future threat was actually as far as a department defense went and the intelligence community one of the greater concerns what happens if potential adversaries achieve significant breakthroughs by\par
 (06:33) getting hold of advanced technology either based on their study of the phenomena or from sensor data or crash retrieved materials then that could provide a problem for the united states in the sense of threat and there's reason to be concerned about that this is a document in the program we dug up out of the soviet union it's a very thick document it shows that the soviet union had a massive program also trying to get to the root of all of this and in this document a number of research institutes and military institutes are\par
 (07:11) are listed and of course they had the same concerns we did is there threat from the phenomena or might the americans make headway before us and that be a threat just to give you an idea of what's being observed which many of people seen because it's been in the news a lot lately back in november of 2004 a nimitz carrier group was out on patrol off of san diego and on several occasions an advanced aerospace vehicle would descend rapidly from sixty thousand feet to fifty feet in seconds and then hover and then take\par
 (07:55) off like a bullet when it first happened and happened over a number of weeks actually uh 2f18 i'll talk about 2f18 pilots were vectored onto the site where this they were being observed by the radars to investigate and what they saw was what they called a tic-tac-craft solid white smooth no edges about 46 feet in length uniformly colored no nacelles pilings and wings the f-18s could not obtain lock with their radars because they were stealthy but forward-looking infrared radar could pick them up to some degree based\par
 (08:48) on their heat signatures and the advanced aerospace vehicle appeared to demonstrate advanced acceleration aerodynamic and propulsion capability beyond anything that that we knew existed on the planet i'm going to play a flir video that many of you may have seen i've got sound with the video do you have a drawing bro there's a whole fleet of overlook on the usa oh my gosh oh going against the wind the wind's 120 knots west it's rotated i'll play it one more time\par
 (10:09) my gosh they're all going against the wind the wind's 120 knots west that's not an s though is it it's not i don't understand but if there's a little thing now you might ask yourself well like what can you prove from from a videotape i mean you can see videotapes all over the internet and so on but this was data fusion their gun camera tapes they're these video tapes for the pilots voice recordings data link recordings from aegis and many other military platforms expert witnesses so in fact the data density and this is\par
 (11:00) what's changed the field a lot our detection capability has gotten so advanced that we're losing our inability to see exactly what's going on the flear displays were recorded uh

there are detailed debriefs of the pilots in that original new york times article you can see a page long debrief of dave fraver oops key assessments the advanced aerospace vehicle vehicle has no known air vehicle in the inventory of the us or foreign nation as far as we can tell low observable characteristics are stealthy they exhibit advanced aerodynamic\par (11:46) performance we can't imagine how they do it and recognize that these are infrared tapes from the pilots so if there was some kind of hot propulsion gases coming out the back you would have seen it but we don't see that they had the advanced capability to remain stationary and then take off like a shot dave favor says it was like somebody suddenly shot a bullet so how to respond to this the defense intelligence agency put out a broad area announcement in fact it was unclassified they wanted to evaluate 12 potential\par (12:23) threat areas with regard to these advanced aerospace vehicles there's a list of them exactly what you would think you'd want to know lyft propulsion signature reduction human effects and so on now it turned out that anyone any aerospace corporation could could apply could send in a proposal dia chose beagle aerospace as a contractor to address the threat now there's been buzz on the internet about okay well senator reid came from nevada and bigelow aerospace is in nevada so wasn't this just some sweetheart deal\par (13:00) in fact that's not the case it was a broad area announcement anybody could go for it bigelow was actually a good choice he'd spent a lot of his own money because he was interested in this area up to this point investigating the phenomena and he had the best proposal and so he was tasked and so we set up a special organization called bigelow aerospace advanced space studies so we we call it bass to do all the things you'd expect a program like this to do well bass connected contacted me at earth tech international\par (13:35) to collaborate as a subcontractor and i agreed to do that okay what did i address as a subcontractor well one of the critical issues is that there's so much high level security and compartmentalization in this subject area and there's a lot of it it's difficult for contractors to obtain expert opinions on advanced technologies because they would expose why they were interested so i acted as a surrogate i was contracted to commission mostly unclassified white papers from experts around the globe where their particular aerospace related\par (14:16) subject areas would be in 2050 as like a general survey of aerospace futures i decided this would be the best way to get the best knowledge we had across many technologies without actually exposing why we wanted to know so i let out 38 contracts over a two year period i'll show you what the studies are on you can read them there positron aerospace repulsion iec fusion is a compact energy source warp drive dark energy extra dimensions metallic glasses for aerospace use really cutting edge kinds of things here's some\par (14:59) more of the papers that i commissioned negative mass propulsion anti-gravity for aerospace applications and so on programmable matter invisibility cloaking these are just the kind of things that we needed to have maximum technical input from the best people around the globe and so that that's what we did that's what i did now we could wait we told these people they could publish their uh reports in physics journals and engineering journals but of course the contractors didn't want to wait for that so the defense intelligence agency\par (15:37) bundled up these 38 papers and put them out as defense intelligence reference documents posted on a jwix server that anyone in the government or contractors could get access to by and large they have not been released and to the public yet a couple of like that so let me give you an example of well how does this stuff help people who are chasing these really difficult problems i'm choosing one here metamaterials for aerospace use i love to talk

about really fancy materials but they're classified however there's a\par
 (16:19) lot of materials that have been picked up or provided even in the public domain i'm going to give an example because it shows exactly what this structure is for how to deal with this this is an open source sample it was sent anonymously to talk show host art bell the fellow claimed to be in the military he said that this sample was picked up in a crash retrieval and so he sent it by email so what does that mean chain of custody non-existent providence questionable could be a hoax it could be some slag off of some\par

(17:00) foundry floor or whatever however it was an unusual sample so we decided to take a look at it it was a multi-layered bismuth and magnesium sample bismuth layers less than a human hair magnesium sample is about 10 times the size of human hair supposedly picked up in the crash retrieval of an advanced aerospace vehicle looks like it's been in a crash the white lines are the bismuth the darker areas are the magnesium separations so the question was what about this material so naturally we looked in all of the national labs\par

(17:46) we talked to metallurgists we combed the entire structure of published papers nowhere could we find any evidence that anybody ever made one of these secondly some attempts were made to try to reproduce this material but they couldn't get the bismuth and magnesium layers to bond thirdly when we talked to people who in the materials field who should know they said we don't know why anybody would want to make anything like this it's not obvious that it has any function well years later decades later actually finally our own science moves\par

(18:29) along we move into an area called metamaterials and it turns out that exactly this combination of materials at exactly those dimensions turn out to be an excellent microscopic waveguide for very high frequency electromagnetic radiation terahertz frequencies so the wavelength is 60 microns which is you know pretty small size but it turns out that because of the metamaterial aspect of this material those bismuth layers that act as wave guides can be 1/20th the size of the wavelength and usually when you make a waveguide it's got to be about the\par

(19:16) size of the wavelength so in fact this turned out to be a material that would propagate sub-wavelength waveguide effects why somebody wants to do that we still don't know the answer to that but anyway it was amazing that we've gone through this and this is the kind of structure we go through a lot you get a material sample of unusual characteristics to be evaluated the method of manufacture is difficult to assess or reproduce [Music] the purpose of the function is not readily apparent as with our sample here and then as our\par

(19:50) own technical knowledge moves forward we finally see a possible purpose or function comes to light that sequence is repeated over and over in this particular area i'll pick a second one here for the engineers and physicists in the crowd probably be more interesting space-time metric engineering this happened to be the paper that i myself provided one of the questions is can the reported anomalous observables of these advanced aerospace vehicles be accounted for on the basis of known physics i mean you hear people describing craft\par

(20:31) taking right angle turns at high speeds and other things with the hovering and rapid acceleration and so on as if the craft didn't have any inertial mass well it turns out although general relativity einstein general relativity is usually used in astrophysical applications and gravity studies and so on you can look at it from an engineering standpoint so if you take an engineering approach to general relativity what i just showed can be can be understood if you

could change the space time metric the way general relativity i'm\par

(21:08) talking about textbook not some fanciful physics you could even get faster than light travel alcubierre warp drive warp drive as in as in star trek again you might think that's a fanciful kind of thing but that paper was published in one of the top general relativity journals classical corner gravity the warp drive hyper fast travel within general relativity so if you engineer space time metric you can begin to line up observables with physics that we know and love even if we can't reproduce it what about the velocity of light\par

(21:46) constraint people are always saying that uh you know how could you have a wormhole you let you go from one side of the universe to the other aren't you beating the speed of light well what does a physicist and engineer mean by the speed of light he means this little equation here where the speed of light is given by 1 over the square root of the permittivity times the permeability of the vacuum so the point is if you re-engineer those vacuum parameters then you can make the effective speed of light higher in the engineered region and so those\par

(22:21) are the solution in general relativity that are called wormholes and again it's not science fiction this is just right off the shelf uh standard uh textbook general relativity applications so what that means is a reduced time interstellar travel is not as skeptics would say you can't get from there to here advanced et civilizations now or ourselves in the future not fundamentally constrained by physical principles the exotic physics for such can be addressed in engineering terms metric engineering is aware\par

(22:58) does this have any help again by the way this paper also was published as one of the defense intelligence reference documents and since we are permitted to uh publish in the open literature uh i published that paper in a british interplanetary science journal and engineering journal so if you're interested in looking at the details you can get learn as much as you want to know about metric engineering and that helped us understand some of the aspects i mean you may have heard the phrase dense stars you get redshift well it\par

(23:38) turns out in this engineered technology you get so-called blue shift that is frequencies are upshifted to higher frequencies so for example in this room so for example in this room most of the radiation coming off our bodies off the walls and so on is in fact in the infrared and but we see things in the visible range but what happens if you get into a volume of space where the vacuum has been engineered in the way i've been discussing it turns out you get a blue shift so in fact the infrared that you don't\par

(24:17) ordinarily see can get blue shifted up into the visible so it's not surprising that all these crafts should be so luminous now the downside from all of this is the fact that visible light which doesn't have any particularly harmful effects gets blue shifted up into the ultraviolet so you get too close to the landing craft you might get a sunburn or off into the soft x-ray region so the chance of radiation poisoning so if you run across one of these sitting on the ground i would recommend you don't and it's powered up i'd recommend\par

(24:55) you don't brush up and well that helped us to understand we as part of this program we looked at some cases that were really good from brazil 77-78 it was like close encounters of the third kind thousand pages of documents all done by the brazilian air force investigative team 500 photographs 15 hours of motion film a lot of medical injuries i know you probably can't read that from here but just a list of the different kinds of medical injuries that occurred when people encountered these craft at close range\par

(25:36) and it has some overlap with cases that we've investigated during the program of

injuries occurring well despite the progress in the atip program let's face it topic is inherently anomalous right therefore despite the reality of the observations and all the people that we interact with in the intelligence community and the pentagon agree the data is there it's it's real nonetheless the topic doesn't fit smoothly into known profiles of government programs for sure and by virtue of natural security\par

(26:16) implications it's high compartmentalization of the topic therefore slow pace of cumulative progress and integration we call them stove pipes you have a lot of people with lots of detailed information about some particular aspect but they don't talk to each other even it's sitting at the next desk and let's face it advocacy of the issue in government circles is not viewed as career enhancing in part because despite the weirdness of the subject if you don't make a lot of progress you know it doesn't look good on your resume\par

(26:55) that you're moving up the line so because of that [Music] there's a forward story many of us involved in the program decided that there should be an outreach program in the public sector so this is the forward story the goal was to establish a broad-based high-quality scientific community of interest in the public sector concerning these unidentified aerial phenomena and other related leading-edge topics and so we got together and formed a company called to the stars academy of arts and science it was co-founded by entrepreneur tom\par

(27:38) delong i'll talk about him in a minute senior intelligence officers from the department of defense and cia and distinguished research scientists we all banded together to form this academy it was set up as a public benefit corporation so the public can invest and therefore it's owned by the public so this is something new whatever comes out of any of the research or any of the released of information is actually going to be owned by the public it's not going to disappear into a black hole very transparent structure if you go to\par

(28:16) the website you can see everything from the financial structure to the activities and we do have a web-based community of interest where things get posted for example those this f-18 fleer tape i show we now have three of them up there probably more to come all right well who are the principals of this organization tom delonge blink 182 rock star frankly i'd never heard of 182.\par

(28:51) but my son told me oh yeah we know about blink 182. but anyway in addition to being the rock star that he is he's also a director and producer puts out books and music and film and so on and he's had a lifelong interest in the ufo area and so he started talking with various people and he was kind of the i could you say the action-oriented person who said why don't we set up something why don't we make this more available to the public and he got to a number of us and so we all began to band together lou\par

(29:29) elizondo who was in fact the department of defense's the pentagon's 8-tip program director resigned from the pentagon and joined us chris mellon 20-year career deputy assistant secretary of defense for intelligence minority staff director of the senate select committee intelligence he joined us we got jim simavan 25-year career in cia's director of operation he was the real james bond kind of guy steve justice just retired as program director for the billion dollar programs at lockheed martin skunk works he joined\par

(30:14) us and then i agreed to be on the board so i joined them in addition to my science and engineering background i've had a lot of activity and in classified areas so i was it was a natural fit for me interacting with all these people we also put together a policy and scientific advisory panel of the best people we could find chris mellon agreed to be the chair dr come

kelleher he was actually the deputy administrator at bigelow aerospace to run the atip program out of the pentagon dr gary nolan top genetics genetics\par

(31:02) professor at stanford university dr khan 30-year career with cia counter biological weapons program dr rapp professor of military and emergency medicine uniform services university dr gilpin consultant on academic biomedical research and research law so we put together a team as panelists to keep us on the straight and narrow of really top people who have wonderful backgrounds and really want to see scientific work be done in this area so the goals for the to the stars academy are promote the concept that such forefront topics as ufos\par

(31:46) seti consciousness studies even telepathy and psychokinesis should not be considered taboo for serious scientific consideration so i mean it's a perfect match to the ssc because that's our goal in the ssc as well and of course a big idea is to generate funding to underwrite significant research in these areas develop user-friendly databases so information that is generated can be accessed by anyone provide positive support for collaborative government aerospace industry and academic efforts to accomplish all of the above so we\par

(32:28) want to act as the glue in the public sector and create entertainment properties books and documentaries and so on so that whatever is learned can be generated can be delivered out to the public uh the structure of the organizations has a science structure an aerospace structure and an entertainment division what are the activities of this organization to date actually we were responsible for legitimizing the topic in the mainstream press that story that came out in the new york times and so on which then got picked up by washington\par

(33:16) post cnn fox news was based on agreed upon interviews with those of us that i've just gone through a list of and given the quality of the sources coming out from the shadows for example ex-senate majority leader harry reid top f-18 pilots significant department of defense and intelligence community officials the bar has been raised on legitimization of this topic in the public arena we think that's an accomplished goal to date and via the community of interest postings on the website we now have three high quality f-18\par

(34:01) video tapes of unidentified error phenomena encounters they've been previously languishing in the pentagon servers nobody doing that much with them these are still being generated one of the tapes is from 2016 off the east coast of the united states i mean there are a lot more tapes hopefully we'll we'll get a lot more of them posted uh we only we don't just produce positive results what people would think would be supportive results one of our scientists science advisors is gary nolan from from stanford\par

(34:43) university who's a genetics expert and there had been claims that some small humanoid skeleton found in chile so-called atacama humanoid you know might be e.t you can see why somebody might think that if you see the structure but anyway nolan and people from other universities put together a complete genetics thing and uh did the entire genome and found that in fact no unfortunately this is not evidence of et it's a deformed human and so that's up on the website if you want to read the paper it was published in one\par

(35:26) of the top genetics journals very well peer-reviewed and meetings are being set up with people from other countries because other countries who also have materials don't necessarily want to give them to the us government because they disappear in a black hole and they never learn anything but given our commitment as a public benefit corporation that that's not going to happen with us they're now talking to us and we're collaborating on

obtaining materials from foreign countries and of course we're negotiating with\par
 (36:06) media outlets to get all this out in the public in the form of documentaries or tv shows or whatever so basically that's the back story and the forward story and i'm glad to answer any questions i'll answer it either i can't thank you thank you for a terrific presentation um so your good friend john alexander published a book and i know i'll have a chance to ask him this too why was it so hard for him to find who was you know who's doing the research who was holding files on ufos and his book he said\par

(36:54) everybody thought that somebody else was doing it but you know said everybody said in all the departments it's not me it's not us they're doing it it was somebody else doing it and uh if materials are being held in special access programs uh casual conversation even with high-level people and who know your interests and they're interested too won't necessarily reveal the facts well i think lou elizondo even said his own boss wasn't quite sure what he was doing so i don't know if that was true\par

(37:31) that's true thank you um uh my name is joe bookman i was part of the organizers of the 2013 citizens hearing which was an attempt to bring the best of the evidence before six or four members of congress i don't know if you were aware of that if you were i'd be interested in your take on it but um my second question then would be out of everything you said i thought one of the most interesting things was there are a lot more tapes um are those classified and if not or even if they are can you characterize them in any way or tell us\par

(38:07) what you might be about they're not a lot different from this and some of them are classified because of where they were taken but as far as the content of what we're interested in from a technical standpoint they're not that different and provided you strike out the say location and so on then there's a chance of getting them declassified and we're working on that yeah if that was a tv channel i'd be quite likely to and generally speaking out of the whole world of the ufo field or more specifically regarding that\par

(38:43) citizens hearing from five years ago is there anything you found useful beneficial i know there's a lot of hoax tourism and posterism and fraud involved in what's called technology well you have to pick and choose among the data i'm familiar with the citizens hearing and so on and certainly the depositions by the individuals who were in the launch towers for missiles who had bob salas for example that's all really good data and so and the faa administrator who came forward all good data thank you hey\par

(39:29) thanks very much for the talk uh um i wanted to bring up something um in regards to um the nature of the release and i guess it was the figure was 22 million as well as a program that was stated to be closed i guess it's i guess it might be a leap but i think uh it's basically a common knowledge amongst uh ufo researchers that the spending in actualities and um you know the billions if not more um so some people in the ufo research community have you know raised the question of you know is this a wooden duck on the pond\par

(40:06) uh to state a figure so low is 22 million and then state that the program no longer exists um i was hoping that you might make some comments on uh the great deal of concern i think that has risen from these these statements thank you that's a fair concern this 22 million dollar program was one particular program that doesn't say there weren't other programs with other funding levels and so it isn't like suddenly there was this one program it didn't last long didn't have that much money and it shut down\par

(40:44) i mean interest is continuing negotiations are continuing other programs are being looked at so a lot is going on i and my colleagues spend a lot of time in washington talking to

committees that are looking at this from many different angles so the general view that oil is just one program came forward didn't provide much of value and then it got cancelled that's that's not really the case and also those those figures are associated with the figures that went out to contractors but that doesn't mean that people within\par

(41:20) the system aren't still working on it you know um all of us maverick and inventors working in our garages on metric engineering devices is there going to be a clearinghouse for um people to um trade discoveries like just the thing about the frequency shift oh we can all be looking for line shifts and lasers to see if we generate micro effects in that but just something like that is incredibly valuable but maybe there's a lot of other things like that well we have a maverick and vendor program at earth tech international my\par

(41:59) organization and also the to the stars academy is putting together a research organization so if you're doing symmetric engineering in your lab and you've got some laser shifting and frequency bring them all we'll look at them okay thank you very much thank you\par

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Transitioning UAP from INTELLIGENCE TO SCIENCE - Hal Puthoff | Panel Discussion - Disclosure Tonight - YouTube\par

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Transcript:\par

(00:07) [Music] good morning good evening or good afternoon depending on when where depending on where and when you are watching this good evening everybody i'm thomas fessler good morning and good afternoon and this is the saturday edition of this builder's night wanna give a warm welcome to those across the pond over in europe united kingdom netherlands germany sweden from some denmark i believe or from someplace else besides the united states reach out and say hey happy saturday everybody hopefully your saturday is going better than mine\par

(01:00) little couple things stirred up the pot just a little bit on the way to the office [Music] it would help if i actually had my proper green screen lighting on there we go yeah when is it ever just gone nice and easy everybody but it should be today we've got a great conversation coming from none other than hell put off presentation he gave to scu back in 2020 uh 21 uh it's something that rob has been looking into extensively for a long period of time hell if you want to call it be like the grandpappy the granddaddy of\par

(01:39) the ufo movement coming out of the pentagon a little bit older a little bit more seasoned than both melon and lou someone who's been in this for the long haul he's not in it to be a part of it hal is in it to win it for each and every one of you cal is one of those distinguished gentlemen who has done a lot of things throughout his life we'll cover that before we get going into it but more importantly this is about broadening your understanding of the phenomenon your understanding of disclosure but we've heard it's already happening\par

(02:10) at least to the people in washington dc uh on that note this is about each and every one of you and how all of us together as a group can wrap our head around disclosure before i jump into this let me go ahead and pop out the chat i haven't done yet and let's see who we

have out in the audience shall we all right here we go let's see julie farrell is here but oh it's the wrong window tom corporation oh boy oh boy it's starting already give me a second i need to find the chat it's not hard to find i know you're\par

(02:52) there give me a sign go ahead and bring it up you can run but you can't hide oh i know i know i know rob here we go just about there julie farrell was the top of the chat i saw that for a brief second let's pop out the chat again and there we go nice bring it up to my big monitor so i can see exactly where we're at go to live chat and let's see if julia's still there ah julie farrell there we go first one miracles never cease giggles well welcome julie i appreciate you being around today granted i don't have the giggles sound\par

(03:35) effect but i do promise i do have if i can read it ah yeah a little bit loud i've got under control now welcome julie i appreciate you being around here today clip c has got a great conversation going starting off today with both mirrored mirrors things reflect light this is psychometry possible because non-mirrored things absorb light images visualizations etc well i guess he could say non-reflective objects absorb light which could potentially be coming from the images but more of yeah great great way to start off today\par

(04:20) brandy phillips with your beautiful hearts and green frogs welcome brandi appreciate you coming in here today followed by eli mcginnis welcome eli and michael elwell here you go we got linda thompson showing off her new article over at medium if you don't know linda you should she's been in a lifetime experimenter a ufologist and uh actually ufo researcher for 30 plus years and an experimenter and a member of mufon investigations and she's also now a writer over at medium i think this is her second article so go check\par

(04:57) it out oh let's see who else we have out there we've got rob heather lee also known as robin hood 1966 rob is in the chat and he is in the back we'll be uh carting him out here shortly let's see who else we have out there ravenous ryan good evening all thank you for the link linda ravenous ryan are you in the united kingdom by chance lori elephant i all hope your life are going well could be better could be worse jimmy m damn i made one it's okay uh let's see who else we have out there today raz\par

(05:35) it says waiting for thomas fessler or susan go oh razz that's a good one husband has jimmy m put off as an absolute legend the things that the man knows as truth would stifle a room in a heartbeat i agree with you uh what do you think peggy oh happy saturday happy saturday back to you hopefully the weather in florida is doing a little bit better than washington state we've got mostly cloudy 47 degrees hopefully you're up around 70 at least who else do we have out there oh yes talking about susan go\par

(06:12) strategic planner well psyops that was her area and it's hard to go ahead and disconnect when someone has in psyops when you're being a strategic planner it's just the state of mind that gets into let's see who else we have out there right now hmm a little quiet today glenn forbes yo yo all welcome glenn and brian from our ranch aragon fun channel be sure to check out his channel if you're into airsoft rifle and having fun and playing war you know war is one of those things no matter how many different ways\par

(06:51) that hollywood tries to present it whether it's in the past the present or the future it doesn't detract from the atrocities and how horrible war is so when we have a term like ufo yeah hollywood has had their run of it but you got to remember and the government has had their run trying to cover it up but you have to remember it is a term that is pretty much in every single language across our planet so it's hard to go ahead and take a term like ufo and and and throw it out there throw it away and replace it with\par

(07:30) something like uap eventually something better when we have something to talk about to bring it up uh to change it at least uh dave's idea channel happy saturday from the uk as well as e.t person or preston e.t is here absolutely welcome welcome welcome who else do we have out there today is my my tech scrolled a little too fast i'm not having another internet connection problem today we'll find out see who else we have out there jimmy m of course livewire podclass clips welcome livewire thanks for coming\par

(08:09) around i believe you're in the uk as well who else do we have out there clip c from the start of the show kevin clark family time shortly get to see them roll their eyes oh well i guess it's just i guess they're going to be rolling their eyes enough until they finally start opening them and seeing what's going to be in front of them ain't nth a friend of dooley welcome ain't thanks for coming around today xavier gamer thanks for coming in xavier appreciate your presence today and i think oh jimmy m's got a good point\par

(08:48) we've got 29 30 viewers 9 likes do us a favor hit that thumbs up after the 12 already we appreciate every single like we got and much like of course i didn't do did not share on social media tom it's something we'll get there one way or the other every like helps and if you're new to the show and you haven't hit that subscribe button yet do us a favor hit that subscribe i'll just get to that point all right on our next point let me uh get out the uh let's see where we're at here and\par

(09:19) let's see if i can find rob and bring him out rob heather lee how's it going my friend it's going good yeah cold rainy day so it's a good day to be inside this stuff's dead i hear you i hear ya let me get a description of pal up here i think uh actually livewear actually had a really good one let me get the description of the hell up here so we can talk about it you've been following hal put off haven't you rob yeah for at least a year pretty uh in earnest i've been watching everything i\par

(09:57) can find on him multiple times there's so much densely packed information there you can't absorb it in even 10 settings there's still more each time i watch i learn more see if i can bring this in this is not the one i wanted i think it's maybe the next one one of these here had a really great right up of hell all right so uh little intro before we let hal give his own introduction from another video clip in 1967 hal put off earned his phd in electrical engineering from stanford university uh when he uh\par

(10:36) he then worked with and invented tunable lasers and electron beam devices uh concerning uh which he holds patents and he's the co-author of fundamentals of quantum electronics uh from back in 1969 published in english french russian and chinese hal uh published papers on persiable vacuum and scotastic electrodynamics topics which are examples of alternative approaches to general relativity and quantum mechanics so uh trying to look outside of the box uh he did take an interest in the church of scientology in the late 60s\par

(11:18) and reached what was then the top level in 1971. put off wrote up his wins for science and for his wins for a scientology publication claiming to have achieved remote viewing abilities in 1974 put off also wrote a piece for scientology's celebrity magazine stating that scientology had given a feeling of absolute fearlessness uh put off sever the connection with scientology in the late 1970s like many um in the late 70s and 80s uh put off directed with both cia and dia funded programs at the stanford research\par

(11:57) institute to investigate paranormal activities collaborating with none other than russell targe in a study of the propoded psychic abilities of ira geller ingo price joe mcgonagall and

others as part of project stargate which uh uh dove deeply into the subject of um what do we call this remote viewing um both put off in targ became convinced geller and swann had genuine psychic powers however gether employed sleight of hand tricks as well unfortunately in 1985 put off founded a for-profit company earth tech international in austin texas where he's\par

(12:40) still today at about the same time he founded an organization called the institute for advanced studies at austin also in austin texas where he is the director independent of the institute for advanced studies in princeton new jersey iasa pursues ideas that put off fines interestingly interesting specifically related to energy generation and space propulsion with funding from anonymous donors i'll put off as most she'll know has been involved with uh to the stars academy he was for a period of time i believe he's still a advisor on the\par

(13:15) board so on that note let's bring up just a small introduction that hal had given back when he was at ttsa back in 2017. let's uh show this shall we physicist hal put off i'm a physicist i'm also director of the institute for advanced studies at austin and basically we do uh forefront research on energy and propulsion for space flight well as a physicist i've always in fact starting the actual forefront of physics and so i've been always involved in looking at ideas that were you know right at the edge\par

(13:59) my connection just dropped here all right let's try this again i think it's back something is going on sorry about that folks slight hiccup in the network connection it looks like we're back again so let me back up a little bit and continue and uh looking at ideas that were you know right at the edge and along the way i ended up uh getting interested in space flight followed the space program in great detail my ex-cia contract monitor kit green told me about tom and what he was doing and said he thought i should meet him\par

(14:44) because tom was really exploring new areas right at the edge of research and that since that was my interest level it would make a good combination interesting a little insight to hal is and what he's about and everything on that note let's go ahead and jump into his presentation from 2021 i believe so let's see what lin people are saying in the chat is saying first comment has been slow all evening bandwidth clogging could be all right ttsa is serious as well yeah kind of serious in some ways uh we'll get to that eventually\par

(15:29) um little hiccups along the way comes down to leadership there's a truth behind it so let's go ahead and get this video off and bring up hal's conversation shall we all right let's get back to the start of this all right here we go um okay you should see my my starting slide is that showing up says uap studies managing the transition intelligence problem to scientific problem okay so you can see where we got the title from but really realistically today the title we've got for this show really if you want to call it ties into where\par

(16:29) we're at and where we're progressing today we're taking it from a intelligence only issue to something that is a bit more if you want to call it a scientific problem he's calling it a problem just because science will look at issues and problems and try and come up with a hypothesis to figure it out but yes it is a potential problem for some let's move on let's start with the intelligence problem as all of us or many of us who are attending this conference know uh for many years actually several\par

(17:04) decades the air force had a program to take in reports from the public you can't hear it rob no i can't hear you talking or i can't hear that okay give me a second rob sorry about that let me get that fixed my fault there's something going on the internet today it's buffering like crazy now for you as well or other things or just this um this is the only place i've noticed it

all right is it happening on uh when you're seeing it on youtube or is it just what you're watching coming back from us\par

(17:48) i'm trying to watch it on youtube and it's swirling all right let me uh do something here then there's a problem with youtube today let's get the output take this down to uh 4 000. let's see if this corrects things a little bit i just lowered the bandwidth by one-third and also from military people and uh try to analyze them and come up with some kind of conclusion and that was project sign project grudge project blue book and so on but the air force kind of wanted to get out of it frankly so they\par

(18:35) gave a contract to the condon committee at the university of colorado and they did a year study and then they finally said science isn't going to be served by chasing this subject area so we recommend that it be terminated and so in fact in early 1970 it was terminated and now what that meant was that after that time if you were to call the public affairs office at the in the air force and say well what's the latest with regard to ufo sightings it would turn out that they'd simply say oh no no no we we got out of that\par

(19:17) business in uh early 1970 nothing to see here we're not we're not investigating ufos anymore however that actually wasn't true it turned out that the very memo by general bollander that terminated the project terminated blue book project down in the frying print had a statement reports of ufos which could affect national security would continue to be handled through the standard air force procedures designed for this purpose so in fact the truth of the matter is the work did not stop in 1970 it continued\par

(20:05) in the shadows primarily in black programs not review black programs also known as the deep state i'd call it and it's the same programs that we're currently the congress is currently fighting with today to try and bring under oversight and control because they've been trying to handle it for 75 years and i haven't gotten anywhere yeah that would include part of the air force absolutely appealed to the public and it went on that way for some decades until finally in december of 2017 the new york times\par

(20:46) was able to come forth with a front page story revealing one of the programs that had been carried out in the recent years called advance aerospace threat identification program or atip this was a major story it sort of started the whole current media coverage that we've been seeing and of course as soon as that story came out mainstream press coverage was all over it and what was different this time was really the quality of sources going public in previous times if you had someone just simply saying they saw light in the\par

(21:35) sky or whatever uh you know the tin foil hat crowd label could have been thrown at it the subject was very stigmatized but here the quality of sources going public once this new york times article came out consisted of people like ex-senate majority leader harry reid who in fact was the one who set up the most recent program top-rated f-18 pilots like dave fravor and so on who encountered uap at close range and a number of significant dod and intelligence community officials so suddenly we had some coverage without the usual stigma\par

(22:20) well what about this program atip actually it was initiated in 2008 under the acronym asap advanced aerospace weapon system application program but very quickly by anyone in the program we use the nickname atip advance aerospace threat identification program so that that's that's the phrase i'll use to describe it well the program was initiated by dia defense intelligence agency and they were concerned about threat from uap as they said crafts drones of unknown origin now what was different now as compared\par

(23:02) to earlier years is there are multiple surveillance and reconnaissance platforms of high quality and so true intelligence assessments could be carried out with really good data because we had excellent reconnaissance data coming in and the conclusion was that there appeared to be intelligently controlled mechanical devices uh capable of performing feats beyond current technological capabilities for example exceed the sound barrier without a sonic boom so this this is what caused the program to be set up now from the dia standpoint\par

(23:44) wait a minute he just said that the program was started up back in 2008 is because the different observables they had like being able to go really fast without popping the sound bear without breaking the sound berry with the sonic boom which means they've known about this before the nimitz in 2014 going way back then they're in since 2004 yeah well i'm sorry yeah 2004 yeah the other ones were um with the gimbal were 2015 to 19.\par

(24:18) of course it's department of defense so their job is to defend the country against potential threats obviously they would have to be concerned about what could be called the current threat and that is this phenomenon is going on possibly for foreign derivation say the chinese and russian could include off world no way to tell until it's absolutely nailed down and being globally deployed and tested including in the continental united states now that's kind of the obvious threat and you might think that that was really\par

(24:56) the threat of concern as it turns out that was not the most major current threat the major current threat was really future threat what if potential adversaries say the chinese russians whoever achieved significant breakthroughs and development of disruptive technologies based on their own evaluations of uap phenomena from sensor data or crash retrieved materials that was the real concern for the dia that's what's in their remit to be paying attention to and while they should be concerned about that in in the in\par

(25:41) warmed up period in interacting with the soviets we were able to obtain a major document about the thickness of a telephone book showing that for example as early as 1991 they had a very major ufo investigation program going forward under the military unit 73790 it was a large-scale effort i show this graph i recognize that uh it probably won't be able to read the fine details in these in these blocks but basically i show it to emphasize the fact that they had a number of military organizations a number of science labs a number of materials labs\par

(26:30) all cooperating together and collaborating to try to get to the bottom of understanding what the uap phenomena actually was so this is a serious effort for them and of course they're worried about the same thing we're worried about and that is suppose we make some great progress on the basis of materials or crash retrievals or just our analysis of the data they'd be worried that we could get the jump on them so this went back and forth by both sides typically under black programs and of course now uh with all the news\par

(27:11) coverage that's come out in the last couple of years i'm sure many of us have seen interviews of commander dave fravor who talks about his interaction with the tic tac and again for those who say well can you really determine something from kind of a fuzzy video or whatever it's important and he's emphasized that when these events occurred there were multiple sensor platforms recording this radar recorded its presence ir recorded its presence dave fravor had eyeballs on it even did a little semi dog fight\par

(27:53) chasing it and so anyway that that's been now presented to the public and of course many of us are familiar with louis lozando who's had a lot of media coverage he was one of

the last directors of the a-tip program and he felt that not enough was being uh treated seriously and so for that reason he left the pentagon in order to be more public about doing whatever he needs to legitimize the topic many of you are familiar with lou he was a keynoted speaker at the first scu conference a couple of years ago uh recently appeared on 60 minutes so\par

(28:44) and on tucker carlson a number of times so he's out there doing what he can to get the word out lou is the person that toward the end of the program that i reported to someone knowing very well now one of the outcomes of official legitimization and all this media coverage was for the first time the navy confirmed that the videos for example really are unidentified aerial phenomena that's really a significant statement for example if it were let's say secret navy platforms drones whatever that they didn't want to reveal\par

(29:30) okay then they wouldn't they wouldn't reveal it but they wouldn't come out with a statement in the boldface lie to say they're truly unidentified so this statement that they're unidentified is to be taken seriously now as a result of all this public exposure the navy drafted new guidelines for their pilots to report the ufos as we now know if you've been following the news pilots have been seeing ufos all the time over the last decades but by and large they didn't report them because they were concerned that they\par

(30:10) would lose their flight status be thought that maybe they were drinking or on drugs or something but now that uh this has all come forward it's now a requirement that they report what they see and so that's why even now a number of their reports are actually getting leaked out to the media yeah one thing to bring out on that it still seems there has been reluctance coming of reporting from the uh in the us air force um with the changes that happen with the uh national defense authorization act from 2020 for 2022 as well as the intelligence\par

(30:52) authorization act there is a high level of scrutiny and a high level of accountability that all portions all areas of the intelligence community within the dod the pentagon and all components which would be the army the navy the marines the space force the air force are all required to provide all documentation on uap not just the current stuff but all of it up to the uaptf don't break the coast guard oh coast guard nasa uh department of energy a lot of different areas yeah coast guard of course you would think\par

(31:36) that the coast guard would be seeing a lot of different uh craft on a regular basis getting reports of it encountering it but then again our coast guard isn't the highest funded is it rob not necessarily but um i think they operate globally so it'd be interesting to see what kind of historical data they supplied yeah absolutely yeah move on okay let's get back to what the dia program was about and this is the transition from the intelligence problem which it obviously is to a scientific problem the broad area announcement\par

(32:22) asks that this list of engineering aspects be addressed in this program the contract monitor from dia brilliant physicist very smart guy i'd have to say he's one of us basically he recognized that what really would count to make any kind of progress in this area in addition to just simply collecting data on observations would be to try to actually figure out anything we could about the technology involved and so that's what the program was primarily directed toward now dia chose bigelow aerospace as a\par

(33:08) contractor to address the potential uap threat big aerospace establishment now one thing that's kind of coming out of this there has been more and more digging into this subject coming from john greenwald over at the black vault and it almost seems like the contract that

was put out for uh ossap and eventually atip was actually not you wouldn't call it earmarked but it's kind of something that was put out there it was written specifically for bo uh for be a uh for bigelow aerospace but you gotta remember one thing\par

(33:50) that is a common uh if you want to call it situation that happens because if you remember before donald trump came into office we had the new jedi program that was put together for this new cloud-based computing platform for handling everything with regards to intelligence and artificial intelligence and everything for the department of defense now that contract if you read it initially was specifically almost sounds like it was written for amazon's cloud capabilities one dot after the other after the other and i'm sure\par

(34:28) there's a high level of probability that uh bezos or amazon paid a lot of money potentially supporting different people on the committees and in congress and lobbying their way to get that text in there the way to help them kind of see things no different than what luella's honda was helping uh congress the senate and the house of being able to write the proper language to get the pull the information of the phenomena out of the dod was something this specific to know what to include in the directives they'd have\par

(35:08) to have somebody that specialized to throw in for it bingo so with that in mind it's a practice that's gone on probably for as long as our government has been around or governments for that matter have been around so just wanted to go ahead and touch on this because even as hell had just said a second ago sounded like he was almost saying that it was almost written for bigelow aerospace it's bad go back a couple seconds here well i understood it um bigelow approached him was talking about skinwalker ranch\par

(35:45) and then when like you said when they started seeing the what they call now the five observables yeah they decided it might be a good idea to put some uh government eyes and money behind this yeah figure out what's going on and something that's really interesting too some answer uh there was uh some post cell from joel maguria over on twitter kind of indicating that george knapp had his hands potentially in some of these introductions to get this stuff going so a lot of people who have been around in\par

(36:14) there for a while trying to make the connections try and get the government to open their eyes to what's going on around around them because remember i think it was elizondo who had said when he had left there is such a potential risk that's out there that's worse than both 911 and pearl harbor combined yeah especially concerning our where adversaries come in on if they reverse engineered sufficient tech first we've seen what russia does without that kind of attack imagine what he'd be doing right now if he had it\par

(36:44) exactly on that let's go ahead and move along here bigger aerospace established bass bigelow aerospace advanced space studies and hired some 50 investigators and so on i mean this is a big operation and bigelow contacted me at earth tech international and asked that i collaborate as a subcontractor which i of course agreed to do and so that's how i became a subcontractor and a senior advisor to the atip program so now because we have been and we have the remit to look at engineering aspects we now had the opportunity to manage the\par (37:33) transition from the intelligence problem we're going to let other people worry about to the scientific problem which is of interest to us so let's start with a hypothesis which is exactly what i did let's assume materials are potentially available from uap for example a crash retrieval or if we don't have materials now we might have materials in the near future so let's assume that this is the case if so as you can well imagine you'd be subject to high level security and compartmentalization\par

(38:14) not so much that it's to be kept from the american public but rather anything that might be learned in a program like this could be kept from potential adversaries who will be looking for clues to develop their technologies how are you going to handle that you got high level security compartmentalization be difficult for contractors that might be working in this area to obtain expert opinion and critical technologies you just don't call up your local university phd and say you know i've got a problem here i've got this chunk of\par

(38:49) ufo material i can't quite understand it would you take a look at me it would all be out i mean that that's the end of black program coverage of it yeah a little one little note as well talking about the durds that have come out recently i think it was 38 of them of which i think 37 out of 38 were released the durds were put together in the initial in the first year of the contract between bass and the department of defense though because of the time it took to get security clearances and everything in place\par

(39:20) the work product for the first year was completely based on non-if you want to call it classified material although some of this work product is still classified it touched on a lot of the different subjects of what they wanted to get into and covered but allow them to get into it from a let's take a look at everything out there that's within the scope of the public at this point and then the second year is when the good stuff came in which is still classified so how do you address this issue high-level security compartmentalization\par

(40:01) difficult for contractors to obtain expert opinion critical technologies this was the challenge that i was given okay my response to the challenge was pretty straightforward i said okay uh well let's commission white papers about all the from subject matter experts around the world unclassified and simply ask them where their particular aerospace-related subject area would be in the year 2050.\par

(40:32) i represented it as a general survey of aerospace futures of course i didn't say uh you know this is really to help us out with the ufo program no i just simply said this is a general survey but these are unclassified white papers so i could go anywhere in the globe and i did i mean some of our best papers on invisibility for example came out of scotland and i told the people that i contact contracted to develop these papers that they were free to publish the results in in physics journals that would be just fine\par

(41:12) so i let out 38 contracts over a two-year period i'm going to show you the topic areas that i covered these theories that i considered significant and that i thought we should get our best evaluation of and you can see even talking about things like warp drive um space time metric engineering on this these are the dirt he's talking about correct rob yeah traversable wormholes i mean we weren't just digging around the edges we were basically going for the juggler to the degree that i thought we could we could do it\par

(42:05) here's another set of papers the high-energy laser weapon one was classified but the rest the rest were unclassified pushing the envelope negative mass propulsion uh whatever anti-gravity for aerospace applications as you can see we really wanted to cover the very edgy topics but since we were going to experts and asking them where their subject would be in 2050 we were giving them permission to extrapolate to think out of the box and that's what gave us really good data another set of papers this is uh some summarize on sums up the\par

(42:54) 38 even field effects on human biological tissues where there have been interactions that might have led to injury or something so anyway there we were what do i do with these papers well i wrap them all up bundle them all up and send them back to dia and they're put

on a pentagon server called jwix defense intelligence reference documents durs as we call them these were then accessible by contractors by the intelligence community by dod personnel but they were not released to the public uh that was not the case here\par (43:47) now i'm told that this set of 38 papers basically became the best seller in the pentagon uh j wick system for some time so it was a very high quality set of papers and people from all different kinds of areas accessed them and were interested in them even if they weren't particularly interested in the uap phenomena now recall i said that these were not being released to the public however as i mentioned i told the individual authors that they were free to publish their results and so if it turns out that you have\par (44:30) interest in any of the subjects that i've listed here if you go to the documents section of the scu website you'll find the list of the papers along with the authors and their academic positions or whatever and so feel free i encourage you to contact them in any areas that are of interest to you and see if they'll share what they developed in developing these papers now to give you an idea of you know what kinds of topics were covered and how thoroughly were they covered i'm going to give an example in space time metric\par (45:10) engineering i use this example because actually this is the paper that i wrote for this series of 38 papers and the challenge that i gave to myself was can reported anomalous observations of uap be accounted for on the basis of known physics well i have to say that ship is not that quite anomalous or unknown it almost looks like a stretch out version of the star trek and or ah the voyager i believe where's janeway apparent reduced inertial mass right angle turns and high velocity and so on and generally if you're listening to the\par (45:53) news um tv interviews and so on it's always emphasized that this all seems to be so well beyond any kind of physics we could imagine but actually because the approach i took my answer was to the question can report anomalous observations be accounted for and based on no physics my answer was yes and i'll show you why i say that what i used was an engineering approach to general relativity which is kind of an unusual [Music] flag to carry of course we know maxwell's equations give us electromagnetism and then by\par (46:35) engineering the equations of electromagnetism we develop wi-fi radar tv whatever well einstein's equations are sort of like maxwell's equations up till now they've been used primarily by astrophysicists who are working out the consequences of the merger of neutron stars or whatever but anyway there's a space time metric that comes out of einstein's equations and so the question i posed to myself was well can we engineer the space time metric for interstellar flight at least in principle even if we don't have the\par (47:13) energy or technical tools to do it at least what do the equations say is possible and so in examining einstein's equations i was able to find out that in a certain select set of conditions effects that seem to correlate with uap observations could come out of solutions of einstein's space-time metric equations here i've got in terms of a particular parameter kappa but under the right engineering conditions you could reduce your mass you go faster in the speed of light get repulsive anti-gravity forces just what you would like to see\par (48:07) the way i arrived at this was that i i took a sheet of paper and left hand side i wrote down what are all the claims that come out of observations of uap and then i wrote down on the right hand side of the paper what are all the effects you might expect to see if you engineered the space diametric and they fit together hand to glove i'm going to throw in one high-tech slide here for the general relativity buffs in the crowd where i specifically list the space diametric components if you're interested uh as all right we\par

(48:44) got to go back it's too good not to go ahead and actually discuss some of this stuff he's go ahead rob looks like he's using applied physics and uh evolving um the foundations of working models which kind of the opposite of the type of physics that salvador pius is doing which is theoretical physics this is the mechanical engineering side of it where they're actually trying to create working models from what they're observing i mean putting it out to multiple um in aerospace and otherwise industries\par

(49:18) and physics groups and things right but here we can he's kind of going ahead and talking about time interval which process clocks faster potentially slower talking about the up the changing of frequency where the blue shift raises the frequency of the actual object itself talking about trying to get effective mass reduction to lower the overall weight of the craft allowing it to do more uh dealing with the velocity of light uh the overall spatial measures if i can go ahead and go back just a little bit farther if it'll let me do that easily\par

(49:54) give me a second go back to the prior one as well it's crazy stuff uh tris vids absolutely come on you can get there did a amount of material that he was reviewing in the 2018 presentation we talked about the three nanometer three nanometer layers um inter stacked evenly between 120 nanometer of magnesium that's you said it was uh producing waves did one 120th and then the force is there which would be 60 nanometers but uh which is ultraviolet low end ultraviolet spectrum what if uh that it was actually used to push through gamma\par

(50:41) rays i think which are the some of the most highest energy uh waves out there that would be insane levels of energy yeah absolutely faster than the speed of light get repulsive anti-gravity forces uh just what you would like to see the way i arrived at this was that i i took a sheet of paper and left hand side i wrote down what are all the claims that come out of observations of uap and then i wrote down on the right hand side of the paper what are all the effects you might expect to see if you engineered the space diametric and they fit together\par

(51:18) hand to glove i'm going to throw in one high-tech slide here for the general relativity buffs in the crowd where i specifically list the space diametric components if you're interested as i said we were permitted to publish our papers so i published this paper in a journal peer-reviewed and it's posted on the scu website in the document section so if you're into this kind of thing feel free to take a look and what kind of predictions do we get out of it well what about the velocity of light constraint you can't go fast a\par

(52:01) velocity of light well that's a statement of special relativity not general relativity and we hear about wormholes and so on well to an engineer the speed of light is given by that equation there c is one over the square root of $\mu_0 \epsilon_0$ the permeability and permittivity of the vacuum so in space diametric engineering you go in and you simply re-engineer μ and ϵ to be much smaller which means that in that region of space c is much higher and therefore it's zipping across the universe and a wormhole is not in\par

(52:37) principle ruled out and i'm talking science fiction here i mean this is academic textbook stuff that general relativity people investigate all the time so that could handle the issue of well they're so far away how could they ever get here another consequence of engineering uh space-time metric under conditions that would lead to the kind of effects that that we think we're observing is that there tends to be a blue shift what do i mean by that i mean in the rooms where you're sitting right now\par

(53:17) you don't see most of the electromagnetic spectrum it's in the infrared it's in the heat

spectrum what we see with our eyes are invisible is that relatively small part of the em spectrum but under the conditions in which space-time metric has been engineered to produce the kind of effects you might expect to see in the uap you get blue shift which means first of all some of that infrared is going to be upshifted into the visible part of the spectrum and so you'd expect craft to be actually quite bright which is one of the things\par (53:52) that in fact is reported well way we could check that out set up some spectrum analyzers and see if you record a blackbody spectrum that's been blue shifted so that's a challenge i give to the spectrum analytical crowd and of course with this blue shift there's a prediction of near field exposure injuries for example the visible can be blue shifted up into the uv and you get sunburn injuries often reported by people who claim to have encountered a powered up craft at relatively close range or if you're too close\par (54:38) i can even some of that visible spectrum which ordinarily isn't harmful can be shifted up into the soft x-ray region and you get radiation injury uh cash landrum case for example you know could fit into this category so there are specific predictions in fact during the atip program we took a look at some data that came out of claris island investigation in brazil 1977-78 there's a tremendous amount of data collected by the brazilian air force thousand pages of documents now one thing to remember is that the\par (55:24) the brazil congress is set to go ahead and start bring up and start discussing uap and trying to bring the information out like what's been going on in the united states so yeah brazil has had a lot of things going on for a long period of time but we're at a point where this conversation we've got going in the united states is starting to open up on a global perspective oh in a second i lost his audio there for a second what the hell is going on data collected by the brazilian air force uh thousand pages of documents photographs\par (56:02) film physiological effects it was like scenes out of close encounters is the third kind so we collected up all that information and examined it and i'll just give you one one graph here about it where we listed the medical injuries and uh some of these same responses to oh this is the exact information from that one dird that's been going crazy in the media the uh this last week rob yeah yeah named encounters at close range uh do correlate with what we've seen in in some cases that we investigated so that's that's a prediction that comes\par (56:50) out of space time metric engineering and by the way it isn't that i thought of this all by myself it turns out that there's an excellent book that most people in ufo and uap investigation seem to have overlooked it's called unconventional flying objects written by paul hill who's the chief scientist manager at nasa langley research center he came up with the idea that in order to match into the observations the craft must have what he called a direct acceleration field and uh when you read his book you\par (57:31) realize it's what today we would call metric engineering it says gravitational like in nature gravity canceling it would permit hundred g's relative to environment accelerations without any onboard high g forces uh you could get supersonic flight to the atmosphere without sonic booms which is one of our observations and he did detailed calculations and computer simulations to show this is some pretty on point on target observations and formulas rob someone we definitely should look into i know grab a screenshot of that\par (58:12) with this metric engineering approach you end up developing subsonic flow patterns of streamlines so you prevent shockwave drag you prevent aerodynamic eating just exactly what seems to match into the data he predicted flight profiles that matched observations and so he came to the conclusion that uap appear at least some of them appeared to be

engineered platforms on the order of 30 tons i think you got that number from some dents and some railroad tracks uh demonstrating 100g accelerations 9000 miles per hour in the atmosphere\par

(58:55) well of course as you can imagine uh while he was a chief manager at nasa uh no way he could he could publish his book back in those days it definitely would have been a killer for his profession but he arranged that the book would be published posthumously and so i highly recommend it if you haven't uh seen the book please please get it and read through it it's very detailed yeah quick thing really quick here conversation in the chat if you take where visible light is and you shift it towards long towards\par

(59:32) infrared long wave infrared eventually you're getting in the microwave radiation in that range i believe that's what the blue shift is a blue orb is just blue visible light has nothing to do with the shift towards microwave radiation and the dangerous side now a lot of the craft out there that are completely invisible to the human eye and all current night vision goggles including the high end third generation military ones cannot see these craft they're only visible up in the past the long wave they're in the long wave infrared\par

(1:00:12) spectrum which is surprisingly enough right next to the microwave radios uh the microwave spectrum so if you're seeing craft if we have these invisible craft that are out there we're only picking them up within long wave infrared which is quite close to microwave there's a good chance the same craft with the same behaviors of what's going on the ones that are actually invisible to the human eye a lot of instances are the ones that are actually putting off this field that's detrimental to humans\par

(1:00:46) a lot of uh excellent work now based on all of this of course i and my colleagues and not being quiet about it we've listed and provided a list here provide a number of briefings to the senate armed services committee the senate select committee intelligence briefings carried out by myself by lou elizondo who as i mentioned earlier is a retired director of the dod's a-tip program chris millen a long career deputy assistant secretary of defense for intelligence so he has really good connections into [Music]\par

(1:01:30) the congressional committee and so he's been very active in briefing senators and congressmen my colleague eric davis who is my chief science officer at earthquake international uh and so he's been involved in a number of these briefings so a lot of briefings have taken place behind the scenes now as we've heard from what rich said earlier the pentagon has set up a uap task force it was requested by selects uh senate committee for intelligence senator marco rubio who's the chairman of it it was actually established and approved\par

(1:02:15) by the deputy secretary of defense norquist so this is finally getting treatment at the high levels where it deserves to be evaluated it's led by the navy under the cognizance of the under secretary of defense for intelligence was created to improve quote understanding of and gain insight into the nature and origins of uap the mission is to detect analyze and catalog uap that could potentially pose a threat to u.\par

(1:02:54) s national security that's the pentagon's requirement and they were told to submit a report within 180 days to congressional armed services committee supposed to be a broadly available unclassified report with a classified annex and that's be if they if they keep to their deadline that should be coming out before the end of june so we'll see what what it says with our next report for the public coming out taking centers all over the globe uh here's a major document that came out of the israeli think tank the bagan sadat center for\par

(1:03:34) strategic studies where they outline whatever has been released so far about the pentagon's uap task force and of course recently just last few days we've seen additional press coverage in the new york times about the upcoming release of this report so it's definitely got everyone's attention so what does that mean for the uap topic i think we can finally celebrate that the uap topic has come of age the former stigma is significantly reduced the major factor i think is due to the increased sophistication of surveillance\par

(1:04:17) platforms uh we have just observations or a quick photo you know reason to be not so sure but now with our unbelievably sophisticated surveillance platforms getting data from multiple sources all coordinated and collaborated you just can't set these observations aside yeah now some of the stuff a little conversation going on in the chat right now they're talking about potentially about the effects on humans of what can happen if you get close to some of these craft when they're in operation and it's the consequence of literally\par

(1:05:01) getting close to an operational aircraft or this operational uap just an operational non-human vehicle it's not like they have direct directed energy weaponry that they're pointing at humans and doing this with if you want to take it as a possible different way to look at it um don't stand on a train track don't stand on the end of a runway and more importantly if you're a bird don't fly around runways because you'll get sucked into the engine so it's a two-way kind of an understanding of if\par

(1:05:40) we're doing things to cause them to come to appear and be a part of it don't have humans around the area where we believe the craft are going to be and if there are going to be these craft that are operational in the air theater over washington dc or different areas we know that if we get our craft too close the people inside are going to have health issues so it's a matter of you know doing our due diligence just as much as they need to do with their due diligence on both sides but it's just kind of a uh\par

(1:06:18) a way to look at stuff it's not like yeah the energy field is a product of the uh motion of the aircraft so it's not it's a passive um electromagnetic radiation effect right that it's inducing on people um unlike the ones where they worthy of uh disarmed weapon systems and stuff on aircraft right they have that capability obviously as well aim brings up kolaris for which she's a moderator yeah kolaris was one where there were actually beams of energy that were coming into people they say they assumed that it was\par

(1:06:53) pulling blood out or something was going on with it it's uh we should be getting an updated documentary coming across from james fox which i just believe he had just finished which delves really a lot deeper into the claris brazil incidents that pain is bringing up and i believe that's the only one of the only instances we have of beams coming in hitting people general people within their residences without the general you know provocation provocation or uh scientific exploration methods that have gone on\par

(1:07:34) yeah they stepped into the line of fire um colors was the only one i'm aware of that had the directed energy at a non-combatant or uh animal or human mutilations as well yeah hey avi do me a favor can you send across any links on that to the reports coming in that part of uh india i'd be interesting to check out what's going on and i did miss a question i had you i had you earlier about vishnu sorry about that let's move on so the data that even that's now public available lends itself to analysis and\par

(1:08:12) engineering evaluation as i showed with regard to the 38 papers at least addressing topics that would be of significance for this area therefore i think our scientific and engineering community can legitimately look forward to significant progress in our

understanding of the uap topic as the future in false and our society for uh that we have here the scu and mufon and other areas beginning to make their contributions i think we have a very rich future coming along in which this topic will be treated seriously a lot of the stigma will be downplayed\par

(1:09:01) and so it's going to be an engineering topic of great interest to all of us and i saw even just today in the news that the chinese also had their own uap task force set up to try to understand what's going on so this this is a subject that's finally come of age and i think we're going to hearing a lot about it and we all have an opportunity to contribute something of value however i have to say besides one announcement coming from china saying they do have a program like this there has been nothing released whatsoever and\par

(1:09:35) i don't honestly believe we're going to be hearing any kind of press releases coming out of the chinese oh and i i know terry hall i'm just giving a hard time back their program is hacking our program yeah straight up yeah absolutely you might have to wonder how much of their data is actually stolen from the united states but remember this is something that is a global phenomenon not just here in the united states it's in the u.\par

(1:10:07) s it's in brazil it's in honduras it's in colombia it's in chile it's in peru it's in south africa it's in central africa it's all it's in india and it's in china as well so this is something that's global sorry if i didn't mention your country that's my comments and be glad to take any questions one question for hal this is joe dinoto uh can you can you talk a little bit about the calaras event in brazil obviously at the unclassified level but uh is there any any perspective or additional context you could offer\par

(1:11:00) about that event that you could correlate with say other cases that may have taken place uh in in europe or italy relative to directed energy capabilities or any kind of similarities between that event in brazil and other events in other places i think the answer basically yes as you saw in my graph [Music] has an enormous amount of data and it lasted over a couple of years we actually met with the general from brazil who's in charge of seeing all this get evaluated and because there was so much apparent direct interaction in many cases\par

(1:11:55) between the uap phenomena and some of the civilians there living on claris island that's why we got in addition all of the medical data about potential damage to people so in our case we had medical doctors who you know have access to studies carried out in various u.s agencies and scientific groups like los alamos whatever in which there have been a collection of data typically done with animal studies and so on which show what kinds of injury you might expect when getting too close to let's say what i would say is blue shifted\par

(1:12:58) [Music] infrared i mean up into the microwave and low x-ray region and so on and the data from any studies where people have for example accidentally gotten exposed to high-intensity microwaves or whatever and then looking at the data out of the claris incident our medical investigators said that looks looks pretty pretty correlatable and so in fact you know some of the people that were involved in those studies are also involved in looking at additional data from you know what we call the havana syndrome and so on so it does seem like\par

(1:13:41) it's all of a piece i don't think we have the answers finally nailed down for sure but there does seem to be at least relatable elements of all of those studies next question folks i'd like you to be able to use the question and answer in hoova uh please direct your questions there we're going through them and giving them out as opposed to doing this so we

want you to hit the people there's a lot of people that have already put in questions hal uh here's one uh wouldn't it be the right\par

(1:14:16) time to bring in a russian and chinese scientist as well i'm convinced we can learn a lot from their history in the uap ufo or the uso research well it's it's a double-edged sword obviously uh having people present their sightings from other countries and what kind of data they've collected would certainly be of use to us but of course if you have that colloquy we're going to have to share some things that we've learned and of course that's that's what's a great concern at least in the dod and\par

(1:14:52) intelligence community and that is they may be missing a critical piece of data to make some giant step forward and we just happen to have that particular critical piece of data and if we shared it with them that would be a problem so on the one hand certainly at the unclassified level uh if we can find ways to collaborate with representatives of ufo investigative teams in china and russia i think i think it would be a move in the right direction but it would have to be handled very carefully agreed the dod definition for threat includes\par

(1:15:35) elements of both intention and capability assuming the capability has been adequately demonstrated by recent videos then what remains to is to determine intention but if we do not know what these craft are or who or what controls them then how can we begin to assess intention what would it what would be the criteria is it merely that they have yet to do harm well one of these sort of signatures which i think you mentioned earlier is the fact that a lot of the uap observations have been near our nuclear facilities\par

(1:16:18) and specifically as has been reported a wonderful book by robert hastings on ufos and nukes some of our nuclear silos have been turned off and we happen to know that the same thing has happened in the former soviet union so when you look at that and you say okay what does that mean in terms of threat well one way to interpret it is that they're good guys and they're just letting us know that if we get too frisky down here and decide to have a nuclear war they can turn it off on the other hand if they're bad guys\par

(1:17:00) you could say okay before they're just the reconnaissance group to check out whether they can be sure to take out our nuclear defense uh when the armada shows up so of course intention is everything and um at this point as far as i know we don't really yeah but destroying the planet when the armada shows up truly isn't an option so yeah we could fire nukes we could do a bunch and try and take something out but if it's only going to do a little dent but it's going to kill all life on the planet\par

(1:17:37) is there a point at that kind of a losing battle rob yeah i just i think there's a higher um agenda going on here that we don't yet understand and obviously they could they could disarm nukes in flight if they wanted to to where they would be completely inert by the time they land so who knows i mean you have to be senseless to try and launch at them right now i guess we do have directed microwave energy weapons that can be used in the upper upper atmosphere and that could potentially be used for uap but the thing of the matter is if\par

(1:18:15) they're aware of it they have an ability to evade it or mitigate it yeah just the high energy state that they're enveloped in um i just don't think it would have any effect yeah absolutely now there is a point where there has been conversation that lou's been involved in talking about uap when we did it uh what do we call it uh we did explode a a uh nuclear organization within the high atmosphere that literally the uaps were falling out of the air with their anti-gravity ability was disabled but remember these craft are\par

(1:18:59) moving how fast fourteen thousand twenty thousand forty thousand miles per hour much faster than any possible new could be so even if we wanted to get one to where there was one to detonate it there's a good chance it's not going to be there when the bomb goes off and they can turn at a right angle at 40 some thousand miles an hour any any speed it doesn't matter it's completely not dependent on they don't have velocity they don't have inertia nope just a different level of holy i have a clue we read all the tea leaves\par

(1:19:39) to try to figure out what it is so that that that's it's still up in the air and that's why uh i mean fortunately at least we haven't had a lot of shoot downs of american craft or other country craft chasing ufos so that that's somewhat encouraging but it's really intention is sort of the big topic of interest that we really wish we could get to the heart of and we're not there yet so it's it's uh up in the air but there's no doubt that the correlated sightings are definitely\par

(1:20:25) seem to be tracking our military elements uh i'll go ahead and stop sharing your screen if you can just so we can see you and i'm going to get the next uh the next question here just a moment okay let me get off the small thumbprint to see you come back here online i should have a stop screen sharing at the top of the screen top of the screen yeah oh stop sharing oh there we go the boomers figured out well just in case anybody doesn't realize there was a small little thumb stamp-sized picture of um hell in the upper right-hand corner of\par

(1:21:12) the screen and what i did is i literally took him i cut him out put him in another position made him a hell of a lot bigger so we could focus on the presentation and see the guy at a decent size so let me go ahead and turn that off at this point i know i've got it selected here somewhere let's turn that off let's continue uh okay so uh the next the next question that we got here is do you have a do you have a working hypothesis as to how these craft navigate while encompassed in the field electro gravity field effects remove\par

(1:21:51) the interior craft of our local spacetime let's see i heard some other voices behind but i did too please if everybody would go back on mute i don't need to have you on here because it's gonna switch around all right so again i'll go back to seeing if i can restate the question do you have a working hypothesis as to how these craft navigate while encompassed in the field given proposed electrogravitic effects or fields effectively remove the interior craft devices from the local space time to first order i'd say no we have not\par

(1:22:33) figured that out on the other hand there are certain elements of of what it's like if uh the if the model is correct about you know space time metric engineering inside the craft everything is working relatively normally it's just that when they look out they see the rest of the world in redshifted and moving in slow motion so at least in terms of detecting their environment uh it's it's pretty reasonable uh you know what okay i'll say this from looking out of a craft like he's talking about\par

(1:23:15) uh there's no color there's no shadows there's illumination that almost kind of looks more like you're looking through infrared and this is at nighttime by the way so what hal's kind of proposing here of what they're kind of seeing when they're looking out it's accurate at least for my recollection they would be able to see now i know that in in investigating things like uh super luminal travel and wormhole travel you get into the whole thing about uh well can you get ahead of that in order to\par

(1:23:58) direct yourself and so on and that that those are questions that are still being investigated by people doing various general relativity models but on the other hand there's a

kind of a simple side of it and that is the people inside the craft if there are people in the craft to them things are very very normal uh so even though from the outside we say oh you know why aren't they fried by the blue shifted uh radiation and so on well it's that under this model all their atomic structure and chemical elements\par

(1:24:34) are also all blue shifted so relatively speaking to them they're in a kind of a normal space or this blue shift is happening as a result of the field on the outside of their craft the question would be with regard to intention it would be important to know who they are and where they are from what can you say about that what say you i can say i don't know the answer to that all right uh hi the subject of this conference is compelling i just want to know if there will be some mention to the supposedly big declassification of ufo-related\par

(1:25:13) documents by several u.s organizations after the law signed by former president trump and enacted in last december i really have no clues about what would be disclosed but general media and ufologists keep saying that the big thing is coming what are your thoughts about the big thing from my contacts and so on i think although there will be enough information coming out to finally later rest that this is not a tinfoil hat subject and there's a reality to it and the government is making a concerted effort to to\par

(1:25:55) learn more about it i think any truly deep state increased knowledge is likely not to come out i don't see all the barriers falling understand uh let's let's either get on with it or allow the question to fade away as it deserves the answer is either yes or no does the u.s government agency example nist or department of energy dod or any private u.\par

(1:26:33) s company organization or any similar entity anywhere else in the world have in its possession one or more vehicles in whole or in part built anywhere other than the earth i cannot comment on that we'll take that as a yes what do you think rob yeah if he didn't if there weren't he would just say no yeah it's one of those it's one of those loose clues when he says something he'll try and talk about it but if it's right on the target and i can't say anything yes or no i'm not going to answer that one which is basically a yes\par

(1:27:15) but they're not violating their nda while they're still giving a clue at the same time yeah i would call that a soft yes meaning i can't go ahead and answer it but i'll just say well i can't answer that question versus talking about something else and just ignoring it completely which is basically something i am not going to talk about two different things for the entirety of your paper oh excuse me that way let's go back to this this just jumped on the screen for the entirety of your paper you're differentiating between\par

(1:27:49) altered space time due to a typical seller mass versus space time engineered by an advanced craft yet in the time alteration section are you suggesting that a craft could engineer both a time-slowed condition giving an individual the experience of missing time as well as the time sped up condition can you elaborate on missing time yes in fact i addressed that in my paper so you could check that out because basically if you're able to change the temporal aspect of your surrounding space you can either speed it up or slow it\par

(1:28:34) down and one of the off one of the reports often that they come forth people say well there i was i was close to a craft and suddenly all the sounds of nature the birds the wind you know i didn't hear anything well if time has been slowed down in that area and has gone into infrasonics so that you wouldn't hear it that's one of the elements that you would expect to to experience and so then you also have obviously both kinds of things where you would interpret it as missing time because suddenly when you if time got\par

(1:29:15) slowed down so maybe you might be let's say in the crafts slowed down vicinity and

for five minutes or whatever but meanwhile outside uh several hours have gone by then when you emerge you say oh my gosh i've got missing time it might not be that you actually missed any subjective time it's just one of the consequences and i i discuss the details of that in my paper or is there a possibility to actually you go into this you're there for months it feels like months months have passed but then you come back in the same time\par

(1:29:54) and nothing's changed just a bunch of different ways to look at the same situation all right uh next question is is there a particular interpretation of the quantum measurement problem that fits best with the work you've done thoughts on boom well i'm i'm i'm i'm in a fiction out of uh bohm's general approach and um but uh that that all has to do with you know quantum effects and so on and uh in pursuing the kind of models i pursued for the uap it's been general relativity of course and\par

(1:30:41) so general relativity and quantum theory have have not locked hands yet so even though for other reasons and for other technologies that i'm involved in i'm a big fan of boom and taking into account quantum effects uh i haven't seen the connection to the uap area uh dr putoff uh one of the durd reports was published in the open literature by professor winterberg at unr in it he goes into great length about possible ways to mine exotic matter caught in the moon's gravity well yes what was your opinion on the paper and\par

(1:31:22) can you comment on its focus on the moon well certainly the general subject was exotic matter negative matter and so on uh and and winterberg is absolutely a top physicist he's a student of heisenberg in the old days and uh he's been part of uh weapons development programs and so on so so he's somebody you you take seriously but in this paper he was certainly extrapolating uh you know kind of way out there because as far as i've i know even in talking with him there hasn't yet been any evidence\par

(1:32:03) of that kind of matter being available and then the particular application he thought of with the guard to the moon struck me as being really on the edge so i i don't really have any further commentary on it here's a statement or a question would nasa's recent statement and interest to now study this phenomena be redundant if not is there a specific area that you would recommend that they focus their efforts on well in in the in the public uh unclassified uh menu uh there are a number of claimed pieces\par

(1:32:48) from various craft from crashes or you know one was shot off decades ago that has pretty good credibility and so on so i think setting up a materials lab would be the best and then secondly if there's any evidence of bases on the moon they might have picked up that would certainly be an area of interest i don't know the answer to that by the way only you know rumor and claims so so anyway i'm saying materials and any observations that show up in any [Music] tracking of various environments those would be the two main things\par

(1:33:34) um isn't it going to be very difficult to make meaningful scientific progress in this area so as long as as it's controlled by the national security concerns well as as basically i was addressing in my paper there is a problem because even if you've got some really good data that you feel you can't share the national security concerns really holds back the scientific enterprise fortunately though i think uh things are warming up you might say uh and and now that the stigma has been reduced significantly\par

(1:34:14) i think there are more cases uh that will come forward and more examples of possibly materials will come forward so i i think that real progress can be made even despite the fact that there there's a large national security uh significance to some elements of the subject um i guess the question uh this is an interesting one uh that i've you've often

pondered and you probably might be aware of it but anyway do you believe that the three navy patents by dr salvatore cesar piece the so-called ufo patents represent any true\par
(1:34:55) technical breakthrough i have no evidence that they do i mean some of the concepts involved uh that that he laid out have a certain resonance with uh some of the concepts that i consider but to the degree that there are claims that uh it's been observed in the laboratory or technologies have been built to demonstrate those effects i have no evidence for that and i think that the navy has pretty well retracted and i don't think it's just a cover-up i i think it was correctly retracted uh there's a says reporter here hi\par

(1:35:37) everybody uh you touched on this today in a cursory way already but from speaking with dr wells the author of the pulsed high-powered microwave technology paper expressed surprise to me about his work being included in this list of durds so i'm wondering specifically how researchers scientists and engineers were approached and contracted to produce these i can tell you exactly because i wrote the contract and basically and by the way in response to what well said i have once of course we thought this would never\par

(1:36:16) particularly come out as being part of a uap effort and so once uh once senator mccain i think was arranged for those lists of papers and authors to be publicized i just i really cringed wanted to hide below my desk thinking all these people i said i'm basically representing bigelow aerospace who's an aerospace company you know moving forward into the future and we'd like to do a survey on where your particular area might be having a connection issue again i think we're back all right by the year 2050\par

(1:37:03) and this is just to help guide investment and technology development in the coming years so the bigger aerospace can be i'm gonna have to go i'm pretty jammed up it's getting too painful to sit you back rob can you hear me okay can you hear me i think we're about back are you there rob back up here again not sure what's going on with the data connection today rob you still around lost you completely wow hopefully he'll come back in there's rob all right one second make sure we jump i'm gonna\par

(1:37:55) need to go man i'm just you know difficulty sitting no this is just audio if you want to call it going and uh no i'm saying i'm hurting very badly i mean i need to go what do you mean i'm hurting tremendously it's getting where i can't sit any longer okay you got a buddy yeah i'm sorry no we that's fine i understand thank you i just we just had a connection issue isn't it time for science to re-evaluate center and change focus we need to take off rob take off it's fine all right\par

(1:38:25) thanks i have that viewpoint um and i'm glad to see that seti some seti people have begun to consider uh archaeological setting that is are there any evidence of let's say materials possibly on the moon or on mars and so on or on earth not just looking for signals i've i've always been pretty skeptical that velocity of light transmission signals were likely to be very effective if for no other reason almost certainly to be encrypted and everything else so so no i i think seti really has to expand at least\par

(1:39:12) you know professor townes charles townes laser inventor said well should at least expand beyond em and include looking for laser signals so that that was optical study that was a step in right direction but but i think also the idea of looking for say molecules and other genetic structures that may be somewhere in the earth uh that might show some different kind of pattern that you might be able to claim was et related that that kind of so so if seti is broadened to include all possibilities and and if they eliminate the idea that well\par
(1:40:01) they never came here then i think seti could make some real contributions absolutely

just just touching on seti if there is any kind of a big program that's in the government right now this is psyop to literally go ahead and try and keep the truth out there from what's been going on with phenomena it's one of those things that'll always say no no no guys guys guys i can't do that here let's uh where's that i screw that one up don't look i moved the wrong piece here don't look in the sky here i can do this\par

(1:40:42) here don't look down here guys there's nothing down here to see hey take these arrays and look way the heck out there there's something there could be something out there granted the signals we would be getting from life that would be so old no chance of them still being alive but no no no don't look down here there's nothing worth it to find now remember seti was the search for extraterrestrial intelligence and they're basically trying to look for uh bacterial life is bacterial life extra uh extra\par

(1:41:20) uh terrestrial intelligence i think so maybe it's the foundations for life but seti is just one of those programs you just have to take a look at and listen to them and you have to say well you've had your chance time to move on speaking of which let's move on with this per your paper presented is the manipulation of the metrics associated with the theoretical alcubierre drive essentially creating a finely tunable wormhole depending on intensity of warp field generated behind an object in the warped\par

(1:41:58) field well that's one that's in fact that's one example i give in my paper but since his original publication of the alcubierre warp drive there have been a number of papers by i mean well over a dozen of different kinds of both warp drives and wormholes and my colleague eric davis has become a super expert on on that kind of thing he's right there in huntsville at the aerospace corporation you might you might talk to them so that that that's an example and it looks like it's not an example that\par

(1:42:36) is likely to be engineered and there's some problems with it but some of the additional papers that have taken off with that as the guiding principle are well worth taking a look at are tic tac type phenomena being seen in other countries right now [Music] uh yes they are and um and just recently lou elizondo brought up another point which was that back in the 50s tic tac exactly tic tac that looks like a giant [Music] tic tac had been reported and so he recently i guess i guess as might have been on tucker carlson recently last couple of\par

(1:43:26) nights he showed this paper from the 50s generated by the military it had been finally declassified in which they saw precisely the tic tac shape based on your extensive study of uip is there any one theory of their origin that you think is more plausible it was a good one well it's a complex question and i've got a complex answer and in fact i wrote a paper which i haven't published called the ultra-terrestrial hypothesis and so i listed what are all the options okay obviously it could be something by one of our\par

(1:44:18) military groups here on the planet well that's not standing in very strong legs these days uh well suppose there's uh somebody arriving from a faraway solar system well that's the standard et hypothesis but you know maybe there's a group from the middle ages that happened to stumble on any gravity and they built a lab uh you know in the himalayas somewhere and it's a terrestrial group and they just happened to discover that or maybe some metis landed here uh 50 60 000 years ago and they're just\par

(1:45:00) hiding out and not making themselves particularly known and then suddenly when we're dropping atomic bombs and polluting the environment then we're messing up their environment as well as our own so they decided to come out of hiding a little bit uh i mean there's there are all these possibilities so i think in fact what i recommend and take into

consideration this is not just man's planet this is pop probably and possibly the planet of a higher intelligence and life form besides us so uh our god-given right to destroy it\par (1:45:38) and everything that we've been told and want to believe that we can do anything we want to any other life form and uh the planet itself is a god-given right some people may need a really big wake up call for that one the paper that i wrote was that we should forget the science for a while and really get detectives to work following gumshoe kinds of aspects to determine of all the possibilities and of course we have jacques vallee who says you know maybe they're involving additional dimensions and so on so\par (1:46:13) so i think all of those should be on the table until there's enough data to take them off the table my personal viewpoint is i well i've been i've got mixed opinions i tend toward the et hypothesis but that's just barely above some of my other hypotheses if uh if blue shifted light is coming out of the uap presume presumptively there is a light source on the uap that is being blue shifted if we limit to night sightings if we're limited then this the number of photons would not increase but just blue shift\par (1:46:57) what would be producing the original light source before the blue shift well for one thing simply the heat spectrum of the craft and the craft is let's say in our atmosphere and probably has a temperature not that much different from the surrounding atmosphere and if that gets blue shifted then you see pretty strong visible light due to the blue shifted infrared spectrum so that would be that would be one thing in terms of uh you know sending out beams um i mean if they wanted to signal uh someone on the earth they could send\par (1:47:41) out what to them would be um let's say an infrared beam knowing it would be blue shifted actually actually whatever light comes from a craft would be blue shifted so you could arrange whatever you wanted if you have control over what kind of optical signals you're emitting is it conceivable that most or all of the uap are van newman probes possibly capable of self replication and that they're innocently observing us if so then might the risk be and only an annoyance say we choose to formally acknowledge\par (1:48:32) then then all three billion of them did decide to say hi but uh that way they say hi is to disperse themselves hover at 500 feet and hang around for eight years well i i'd certainly go for that i mean you can't rule out von neumann probes i mean that's very uh sophisticated but you might say realistic uh kind of thing to think about and if they're self-replicating uh they can certainly account for largely many of them so um why not what are your thoughts what do you think about the of any kind of an international working\par (1:49:14) group or on an international level that would allow for people who are you know as opposed to this like you know each country doing their own thing with national security how do we get beyond that and get into the uh the international working group i certainly think that's a great idea and i would encourage it and uh you know the scu as an organization who in accordance with your map has brought together at least interest from from countries all over the globe uh i mean the scu could be just such an organization\par (1:49:52) i know mufon tries it and has had some some carry weight there but anyway i think i think would be a good idea and certainly uh specifically in the atip program we went out of our way to interact with people from various south american countries and so on and so getting a collective global group to address it in common and begin to share whatever particular pieces of data they have i think that would be great i mean we learned a lot from the tehran incident where the tehran fighter pilot headed toward a ufo and then had his weapon systems and\par

(1:50:36) communication system turned off but the rest of the plane operated correctly and that uh you know these events that are happening around the globe interacting with different forms of the military and so on yeah definitely anything we could do to promote that i would be all for chocolate by the way jacques acting with the french group japan and so on has been very strong on that issue great uh did you ever get a chance to read uh and if so do you have any thoughts on ning lee's 1993 paper on gravity grab a gravito electric electric coupling via\par

(1:51:21) superconductivity well i certainly read all of her papers i also participated in the mitre conference where she made a major presentation and um originally i thought you know she may really be onto something but the fact that it hasn't particularly gone anywhere and some of the critiques that have been published from a scientific viewpoint i found kind of compelling so it's definitely in the gray box on the shelf same with the podclatenoff results from russia ufos appear to be interested in our technology are there potential concerns\par

(1:52:10) for ufo encounters that should be considered during the upcoming efforts to colonize mars i can imagine that if ufos are spotted on mars by colonists this could induce a great deal of panic well it would be nice if we're going to run into denizens there that we would have some kind of interaction and protocols before we got to that point so that that's what i would hope that people would be thinking about and working on a peer-reviewed and or published papers typically require extensive corroborating data and reproducible\par

(1:52:53) experiments for field experts to then verify you noted that some of the data used for the durd papers did you you or others conduct any controlled experiments to verify any of the paper's proposed hypotheses or are these uh the results of just physics and mathematical deductive reasoning well several of the papers for example i'm thinking of mhd paper out of lockheed martin paper on energy storage and so on there are several papers in that group of 38 that are actually the results of years of laboratory experimentation and data collection\par

(1:53:39) and it's presented in those papers so the papers aren't all just you know wishlist kinds of edgy proposals several of the papers have a lot of experimental data involved so you'd have to go paper by paper but some of them are really quite detailed have been published in the peer-reviewed literature have had replications in other laboratories that are referenced so it's uh it depends on the paper uh how of late it seems that there's a concentration of of cases right now that are coming forward uh\par

(1:54:21) made by uh on us military assets uh do you feel that this is the case or do you believe it's a matter of reporting or disclosure in some of those countries i mean what's the focus here why is that suddenly happening well i think that for whatever reason the uap phenomena is highly correlated with and concentrating on military and military-like and space and nuclear facilities why that's the case i don't know i'm not sure if anybody knows but definitely that it's it's not just uh selective reporting\par

(1:55:07) i mean that does seem to be the case and of course that's why there's such concern behind the scenes on what the significance of this really is in uh in 2021 balbrick and martier uh published in the journal classical of quantum and uh journal classical and quantum gravity about the possibility of positive energy physical warp drives as a shell of regular or exotic material moving in inertially with a certain velocity therefore requiring propulsion requires propulsion of subliminal some limital spherical spherically symmetric warp drive space\par

(1:55:53) times do you think that this approach can be valuable well i think exploration of all of these approaches is valuable and and from the math and the theorizing outcome predictions

and then those predictions if we have an opportunity in the lab or an opportunity in seeing uap uh in the vicinity we might be able to uh check out whether those predictions are valid so i think all that kind of work is is certainly useful absolutely great conversations let's see um have uh have these objects convincingly demonstrated any kind of telepathy or\par (1:56:40) psychic uh activity in other words is there any connection to that i know that you were heavily involved with uh like the remote viewing type of thing and some other kinds of studies research institute you see that there's any connection between the objects and anything of that nature well certainly there's a lot of uh reporting of people claiming those kinds of experiences where they have interacted with some kind of being and the interaction was telepathic so as far as i know it's not pinned down in\par

(1:57:23) the scientific sense that that all of us at scu would like would like to see but nonetheless given that there's so much of that kind of reporting going on i and others have given thought to what kind of mechanisms would be involved and you know we've we've done some modeling and i'm pursuing some communication quantum communication technology that you know may have a relationship so i think it's a fruitful area to think about and to try to gather data on and but in terms of its relationship to\par

(1:58:03) uap phenomena it's uh it's still sketchy at least from a scientist's standpoint um just a question here that uh it's been plaguing me too is it it seems like all the the recent sightings and stuff like that have always been with the navy and it seems to be that they're taking the lead right now with the dni and everything else the united states air force responsible control of our skies why is it we don't see anything from them you know actually i know that that's a good question and um\par

(1:58:38) i actually don't know the answer i know that the navy has been you might say more active and pro-investigation for a long time and certainly recently it's been the navy pilots that have had the the primary viewings as far as we know so i don't know whether that means the air force has some equivalent and they're just not wanting to get on the public bandwagon about it or maybe for some reason with a lot of the uap coming and going from the ocean you know maybe it's more of a navy thing so uh i don't actually know the answer\par

(1:59:25) to that okay and we have like about one more minute and i'm just going to ask you this last question here do you believe that there are any current craft that uh have the properties of the tic tac objects and our human groups that can take e.t home i think that's referencing you know the referencing ben rich's statements yeah ben rich's statement i'm skeptical i mean i can't absolutely write it off but uh with whatever access i've had and of course everything is still very stove-piped so it could just be that i\par

(2:00:03) don't have the access but i haven't seen any evidence of that absolutely well this has been quite uh one heck of a great conversation coming up from hell put off as we uh move towards the 6 p.m hour in uh pacific time or the 9 p.m hour over eastern remember tonight over at ufo man we have an interview going with luella zondo while lou has been kind of taking some time off for a little bit here and there but lou is coming back tonight believe it or not to go ahead and talk with him i can't believe it tommy\par

(2:00:46) yes so be sure to check it out be sure to find it let me go ahead and get the overall if you could uh link for that into the chat for everybody to go ahead and see that let me go ahead and paste that and put that in there we go it's linked into the chat so question is are we gonna get a bunch of questions that are coming out they're the same luella zondo questions lou's never been over uh to hang out with tim dust in the past uh hopefully there'll be some good

ones should be some good moderation there to\par

(2:01:22) keep the trolls away i would think as well um question is are we gonna have any questions coming out about the situation going on with good old gary reed what's been going on with the uh with the person over in the department of defense apparently word on the street is he's still there but he's had all of his responsibilities removed so basically he's there in a position but has no authority and no responsibility at this point so we're going gonna start a countdown actually a count up timer this was announced on\par

(2:02:10) what was it thursday of this week friday saturday we're now thursday friday saturday we're now day three into the harry reid drama going over in the aoi msg the ua ptf he's if he's a part of it over in susan go's boss he's uh in the intelligence community he's been in the overall uh you know line of fire keeping the information about luella zondo illegally out of the out of the hands of the people he's been circumventing the foia process people in his area of authority have been going\par

(2:02:58) outside of the law and remember as we heard many times a couple years ago no one is above the law and this goes and includes you bet it mr gary reed over at the department of defense how many more days is he gonna is he waiting to go ahead and be terminated from his position or put down into a lower level within the overall organization it's something we're gonna find out is he going to be even given the ability to take care of little old cupcake who knows but time will tell susan goes not saying anything\par

(2:03:41) which is not a surprise but we're going to see where it goes we're going to watch how it's happening is as this unfolds because we've got if you want to call it our finger on the pulse of one of the people who have been purposefully purposefully holding back the truth on luella zondo and the phenomena so this is a big change of in washington there's been a lot of rigmarole going around it let's see if the information starts to flow out and starts to come to light now that he's gone or are we going to be getting the same\par

(2:04:19) old same old with someone else coming in doing the exact same thing that gary was doing maybe not quite because gary did screw up pretty badly if you remember the evacuation of afghanistan oh that wasn't a Biden problem that was a gary reed problem so there's uh several levels several layers to this cake till we get to the frosting on top i'm looking forward to see where all of this truthfully is gonna go i'm sure of all of you out there are because you know there are a lot of us on this channel here who\par

(2:04:54) respect you for understand the commitment he's given to our country the commitment he's given to the people even though he's no longer in the role that he had he's he left the federal government in 2017 he still holds the highest level of of top secret information that's available why because he's Lou we're not going to see him hopefully go back into the position and within the federal government because if that happens the momentum and everything that Lou's been pushing forward on the aoi with e\par

(2:05:32) with congress with the uh not the aoi msg but with congress with the uh changes in the laws that we had remarkable in the uh national defense authorization act of 2022 ground making oh is this sam offline again i've got to figure out what's going on with my data connection oh i know what it is my battery backup device for my verizon fios thing is is no longer holding a charge and it runs off of that charge which probably means that's why maybe i'm losing the connection we'll figure it out but let's try to get Lou on the\par

(2:06:14) channel in the future would love to xavier gamer it's something we're gonna try for it's something we're gonna push for to bring it back again there's nothing like some good

information from lou and see the thing is we can go ahead and we can ask questions but a lot of time it's just giving lou that opportunity to come out and talk about the situation let us know the information that he has to bring forward you can always ask questions and try and find you the gotchas but all the gotchas\par

(2:06:43) are gonna do are gonna take a man who's out here to do things for us and cause them to go back into the shadows and that's something some other you know live streamer channels have done uh they've crossed that line intentionally uh make no mistake about it and it's caused some rifts in the community it shouldn't be there but it's up to us people like you and everybody else to support the guy let him know that we support him that it isn't just sometimes it's the uh if you want to call the\par

(2:07:20) squeaky wheel that gets the grease and this time it was the squidding wheel that was thrown into the gears to create the grease we'll find out when time will tell so any predictions from anybody in the audience with regards to what is something that you would like to hear potentially coming in is a question hello that has not been answered in the past i honestly i just want to hear about where we at now how was this change with gary reed going to affect everything if he could talk about it because if anyone\par

(2:07:55) would have any insight to the changes or what's going to happen it's going to be lou because remember it was like two days before this he was over on the kennedy show and he said watch there are big changes about to happen and when those changes do happen it's about finding what they are where are they going to get to how is it going to happen i know i'm going to be over in the uh ufo man chat watching what's going on during this and i hope i can see all of you as well uh and if you go over there you're\par

(2:08:31) interested in seeing some ufo videos subscribe to tim he's a good guy uh and if it's not your your deal you're more up for the kind of stuff that we do here then don't subscribe it all comes down to what you feel that you want to go ahead and be a part of and participate with but i'm glad that uh you know lou is giving um what do you want to call it him dust the opportunity because tim was actually a long time ago tim really did like stephen greer like a lot of us did but they had said that okay\par

(2:09:03) dr greer won't come on your channel until you at least hit 30 000 subs well when he hit 30 000 subs and he reached out the grier's assistant again the litmus test had been gone up from 30 up to a hundred thousand if you don't have at least a hundred thousand people on your channel we're not gonna come because it's not worth the doctor's time so forget about the message it comes down to the money that's involved to bring out the money and and look for the situation it's just a it's just\par

(2:09:36) something where we're at uh avm is saying i'll be there in the ufo man chat and we'll support lou in the chat absolutely i'll i will be as well xavier gamer will be there as well where are all the ufo lawyers i mean they have a strong case that's a great question it's something i was thinking about getting danny back on here again and say hey danny we talked about a lot of great things when you're on here with lou remember we didn't have luan here the last time for a question and answer\par

(2:10:06) session that was a round table that was a discussion to get in to have lou danny and sean talk about the situation the plan that's ahead and how they're going to get there it's been a month month and a half about a month or so since we heard from them last it'd be interesting to see where we at what steps and more importantly what's something that i can do but what's something else that each and every single one of you out there can do to go

ahead and help bring this and move things forward\par

(2:10:38) because it's going to come down to not as as danny had said not just to go ahead and um i would um go ahead and get it in the twitter community or the ufo or the ufo uh if you want to call it youtube committee it's getting people in your community in your church groups in your social groups in your veterans organizations going across everything and having that conversation and opening up i know someone was saying in the chat earlier today oh i'm going to go ahead and talk to some of my relatives again today\par

(2:11:18) but it's going to be that uncomfortable conversation where there's just this lack of understanding of people knowing it getting a little rough around the edges but it's still there it's getting to that point say you know folks we've got tinfoil hats granted linda you should look into this for people who are experiencers wearing certain kind of hats can reduce abductions by over 40 it's one of those things that are there it's just something that blocks the ability for the stuff to get into it\par

(2:11:52) either way around you know getting back the idea of the tin foil hat the tinfoil hat was there when the situation we were dealing with was pure speculation things that are being made up like saying oh these aren't uap they're drawn they're all drones from china or saying all those triangular craft that's from lockheed or for instance oh what's another one it just goes on one after the other oh yeah they're all loving light yeah right um there's a lot of things that are set out there there's a big business\par

(2:12:32) that goes into ufology and one of the reasons if i jump back into the host in the studio from what we're talking about earlier uh go back into here we go it's transitioning uap from intelligence scientific because that's what it's about it's about getting us out of this area of speculation that everyone's in and going to that scientific area intelligence intelligence has kept us all in speculation because they've taken all of this and locked it behind the secret door personally i'll take what's behind the\par

(2:13:09) curtain versus what's behind the door or in the box or throw away the box we'll take everything else but the truth of the matter is it's out there it's real there's an understanding to it there's a uh a path i guess we have to find to help the others who were out there to start understanding to start believing trying to find those little you know 30-second bites of information to get their attention with because everybody has a short attention span you throw up an hour video and say hey let's watch\par

(2:13:46) this together ain't gonna happen you have a 30 second or one minute video clip get their attention something to open the door and get the conversation going on that note it's been one heck of a great show here today uh hey even though i've got the sound effects yeah it's been a quiet one today so break some glass hello susan yes yes yes i know oh i know he's not here as well but what i can do is scam out of here and let's uh find the song to end the show with shall we oh where'd it go songs\par

(2:14:29) wrong one i want to thank everybody for coming out here tonight to our saturday edition of disclosure tonight yes it was a time we actually hung out and watched a good video but sometimes that's what it's about sitting back listening to some other people not just us talk about having a little bit of an opportunity to go ahead and share the information to get the communication across to go ahead and raise all of our awareness on this situation this isn't just about about my disclosure or rob's it's about\par

(2:14:59) each and every one of yours disclosures that are out there that's what it's all about and and together as a community raising everything let me lower that down a little bit there

we go raising all of our abilities of what we hear what we see sharing it being able to go ahead and take us to that next step and on this level i want to thank everybody who was still in the chat right now got a bunch of you ain't nth avm flip c jan peggy mark uh michael elwell razz tris vids and of course xavier gamer don't forget we had linda thompson\par
(2:15:40) julie farrell uh jan was even gentle jan's still around now and a bunch of others i want to thank everybody for coming out here today and i look forward to seeing all of you in a few over in the ufo man chat i've got a link over to at the top of the board and actually i'm gonna click that now and head on across and uh you know we've got how long 39 minutes until luella's ondo time looking forward to the conversation to see where it goes thank you everybody have a great saturday and tomorrow will\par

(2:16:12) be off as usual on our on our sunday break remember we're on monday tuesday wednesday thursday off fridays and saturdays five days a week for the latest disclosure information to help make all of us a lot more aware we're here we're here for the long term this isn't a hobby this is a passion take it where it is and i appreciate you all coming out here today and uh as what i'll usually say would be eyes open no fear be safe everyone on where's it at go back to party city where you belong\par

(2:16:53) exactly and we'll catch you on the flip side take everybody we'll see ya\par

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Vacuum\~Energy - Dr. Hal Puthoff (1994) - YouTube\par

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Transcript:\par

(00:00) they would be to just show a few view graphs to introduce the topic and my name is how put off i'm director of the Institute for Advanced Studies in Austin Austin Texas and since 1985 we've had a very intensive program both theoretically and experimentally on new energy concepts and so we have an ongoing budget the engineers working in the laboratory everyday many patents for various devices and so we feel like we're making reasonable progress and one of the requirements we have is that the work be\par

(00:47) of high enough quality that it can get published in mainstream literature so we've published many papers in Physical Review in the United States which is the toughest of the journals to publish in so it is possible to present these ideas in the mainstream even one of the papers that we published last year had the in Physical Review had the title extracting energy and heat from the vacuum and so that that was accepted i and a colleague from IBM worked on the energetics and the thermodynamics to show that there\par

(01:32) was no violation of either to pursue this concept [Music] as we all know there are problems with fossil fuel sources which we presently use pollution byproducts there's certainly problems with the nuclear power plants especially in the United States there's a very distant now essentially impossible to build a new nuclear power plant so people in the end it's energy industry are out searching for alternatives and of course some of these are familiar solar energy thermonuclear fusion in the beginning\par

(02:22) thermonuclear fusion looked like it would be a great boon but you're probably familiar with the joke it goes around thermonuclear fusion looks great about 15 years in the future but then it's always looked great about 15 years ago capillary fusion is a different form of fusion

that may work there's a lot of controversy about so called cold fusion fusion under non thermonuclear conditions but the one I'm going to talk about which I think has great promise is so-called zero-point energy extraction I'll explain what I\par

(03:10) mean by zero-point energy it really is the energy of so-called empty space the concept of empty space has gone through several shifts over the past couple thousand years for example Democritus that empty space was a void otherwise how could there be room for the atoms to move around in but then Aristotle came along and said no empty space must not really be empty because we have heat and light and it must propagate through something finding this was codified last century by Maxwell and electromagnetic theory saying well\par (04:00) if electromagnetic waves are waves in like water waves they must have something to propagate in so there must be an ether but then in special relativity when attempts were made to try to measure velocity through this either it couldn't be done and so with special relativity and the michelson-morley experiment people said okay there is no ether empty space is really empty but there was only ten years later my Stein himself in developing general relativity ended up having space time that could be distorted and warped and by the time he\par

(04:44) got finished describing what general relativity had to say about space with all these properties of being warped and distorted Einstein himself said well in space isn't empty introduced the term metric but basically that sort of brought the idea of a full space back so Einstein didn't really get rid of it except for a few years and finally with quantum theory that's when it became absolutely clear that empty space was not empty there are vacuum fluctuations particles come out of the vacuum and then annihilate and go back into the\par

(05:24) vacuum so it's now recognized by quantum theorists that empty space is very full very active what do I mean by that let's say we have a case of say a mass and a spring you pull down and and you let it go like that or say have a kid on a swing and you give them a push and let go classically we say that the thing will eventually come to rest the oscillator will come to rest it comes to rest because there are losses in the system energy leaves the system and eventually would come to rest but quantum mechanically we say that's not the case\par (06:13) if you excite an oscillator you push a swing or a pendulum you do anything like that and let it go losses will reduce its energy if it only comes down to a certain minimal amount of energy and that energy remains and so everything at the microscopic scale is always fluctuating in fact it turns out that team and it's been calculated in this room there's enough energy in that volume to evaporate all the world's oceans and that's not a controversial idea or fringe idea and standard quantum mechanics it's recognized that the\par

(06:58) energy in even a coffee cup there's enough to evaporate all the world's oceans john wheelers calculated richard climene's calculated it the question is can we get at that energy and for a long time it's been thought probably not but as I'll go through in my presentation tomorrow there's been a history of development where we see that you can get at that energy they might ask there's all that energy right there where does it come from and we know where it comes from [Music] every piece of matter in the universe is\par

(07:45) fluctuating around doing its quantum dance and so doing it radiates energy out and then every other atom is sitting in that radiation field and absorbing it and that causes it to jump around and therefore radiate so it's basically the electromagnetic equivalent of putting a microphone by a speaker and getting squeal the particle fluctuations generate the fields the fields cause the particles to fluctuate and you can do the calculation and show that that

accounts for where the vacuum fluctuations come from it's a giant\par
 (08:24) cosmological feedback system and we've published that in Physical Review the details on it they might say if there's all that energy even right here in the room why don't we notice it well in fact we do experiment any of you can do to prove that that energy is really there suppose you're on a bus or a train it takes off with a jerk and you fall back on the floor what is the force that knocked you down I mean it's a big force to knock you down well it's that has the train or the bus tried to accelerate you you ran in\par
 (09:18) to the wall of vacuum fluctuations and there was a resisting wind from the vacuum that held you back and knocked you down it turns out that that resistance to accelerating through the vacuum energy is proportional to acceleration so unlike ordinary wind if you're just moving in a constant velocity you don't feel it but if something tries to accelerate you you do feel it and hold you back and so the reason Newton's law says force equals mass times acceleration the reason that when you apply a force you\par
 (10:00) get an acceleration is that you have to apply a force proportional to acceleration and overt in order to overcome the vacuum energy holding you back which is also proportional to acceleration so actually there's no more ubiquitous constant phenomena every time you move your hand you feel the vacuum so the energy is very palpable we just published this in Physical Review in February of this year and so it was very well received there was a two-page write-up in science magazine and also in Scientific American and those are very\par
 (10:45) conservative publications in the United States and yet still they were interested in published about it does this close the loop of the terms of the universal theory well from our standpoint the vacuum fluctuations do provide a unifying field theory I've already shown in earlier work that gravitation can be accounted for and gravitational mass can be accounted for on the basis of interaction of particles with the vacuum fluctuations and then in this paper we found that the inertial mass came out to be the same as the\par
 (11:28) gravitational mass and that's known empirically but from a philosophical standpoint it's never known why the inertial mass and gravitational mass can be the same and the answer is they both arise from interacting with the vacuum fluctuations and it fixes them to be the same no that's an addition who asked the question right right that's an addition when you when you write down what is the background in the universe you get two terms the one term is a zero-point energy the other term is a thermal\par
 (12:16) background distribution the reason the zero-point energy is called zero point is because if you let temperature go all the way to zero the thermal term will disappear or after zero point this first term which we now call zero-point energy remains it doesn't depend on the temperature so the term zero point and zero point energy means zero temperature point so you would have zero point energy at Absolute Zero at Absolute Zero and in the absence of anything else that's right so if you go on the furthest vacuum of outer space and\par
 (12:57) you're hoping to power your spaceship on zero point energy you would not have a problem don't know if you leave no for - and I don't ecology orientation thanks elevation you say you doubted the doctors installations observations can you because the density dizzy or this custody of the ease of changes as a result causal TV change okay when our modeling I would agree with the first part and that is if the density of the vacuum fluctuations changes these will change but our model they changed together but I had fun luck with all\par
 (13:39) these what yet thirty-six percent for the Jovian woods that close already nicely now

we're interested here is extracting this energy for use now it's a well-known false idea in physics that well we have all this heat energy around us why don't we somehow extract that energy for use but you can prove that just doesn't work it would take more energy to get the energy out of the surrounding heat than you again and someone's recognized a zero point energy was there it was thought that similarly it\par

(14:30) couldn't be extracted but a researcher huge laboratory pointed out that there was already in effect in the laboratory which demonstrated that the zero-point energy could be extracted it's a so-called Casimir effect Casimir effect is named after Heinrich Kazmir who was research director for many years at Philips Laboratory in the Netherlands and this is what he noticed as you know if you have a say a radio transistor radio and you take it in your car or go inside of a metal building or inside of a shielded cage you can't hear the radio\par (15:16) stations the metal shields out the electromagnetic signals well this vacuum fluctuations are electromagnetic signals and so Kazmir realized that if you had a metal enclosure or say even just a couple of metal plates together close to each other that the region in between would be somewhat shielded from the vacuum energy coming from all different directions it would be somewhat shielded well this energy has radiation pressure momentum energy just like any electromagnetic wave so between the plates where some of that energy is\par

(16:06) shielded out the energy traveling back and forth puts only a certain amount of radiation pressure outward but outside where there is no shielding you have all the energy pushing in by radiation pressure and so what happens is that the plates are pushed together and this is a large force and it's been measured in the laboratory the force goes up to a million Newton's per square meter at close distances well a Newton is the weight of a book the square meter is about a square yard so it's a big big\par

(16:43) effect certain cases when you bring metal tips down closest close to pieces of metal for example an electron beam machining this force is strong enough to pull the metal tip into the material and in industrial processes you have to use strong servo mechanisms to keep it away so this is a big effect well what a researcher at Hughes realized was okay if I put up two metal plates in outer space and I walk away those plates will get pushed together faster and faster and faster and faster until they finally hit and when they do that generates heat\par

(17:26) so you've actually converted some vacuum energy into heat and you can trace that it doesn't violate conservation of energy you can trace bit by bit where the energy comes from the energy comes out of the vacuum starts to push the place together as they get closer and closer more and more modes are shielded the energy vacuum energy that was in those modes has now gone into the kinetic energy the plates moving together closer and closer more modes excluded more kinetic energy and then they hit the kinetic energy is\par

(18:03) turned into heat so there was a proof of principle absolutely acceptable in mainstream physics that the vacuum energy could be tapped now the question is is there some way to tap it efficiently yes right like that's part that's right it's part of it that's part of it the other is there are some charged effects on the surfaces too of service that's when they go together you can't pull them apart yourself do that you have to do it this way right and our since lasers have been invented people\par

(18:48) always have these very polished optical flats and lasers and again when you put them together you can't pull on the part you've got it tearing apart that's partly this effect so the question is is there a way of getting it out efficiently so far there are three ways that are

known to extract the energy in an engineering sense the first is electromechanical and this was published by this researcher at Hughes and even applied for a patent called a vacuum fluctuation battery I don't know if he got the patent but he\par

(19:27) applied for it his idea was well instead of letting the plates come together and make heat I will charge the plates electrically and then as they come together they will build up strong electric field and then you can use that field to drive currents through a battery but it's not practical because the amount of energy you get and the difficulty in dealing with them so close it's just not practical but in our laboratory we're working on two additional methods instead of having plates come together you can also have a\par

(20:10) cylinder which is squeezed or you can have wedges which are pushed together in other words anytime you have surfaces near each other that can control the vacuum modes you will get this kind of pressure force and so in addition to like squeezing a metal boundary it's also possible to make a plasma a little lightning discharge in the laboratory just a high-tech version of scraping your foot on the rug and touching the doorknob and getting a little spark and it turns out that if you meet certain conditions on the density and the\par

(20:49) voltage and so on then you can get this effect to squeeze a plasma as well as pull metal together and so that's one of the approaches that we're looking at generating little lightning bolts in the laboratory they condense the charge by the way it leads to a whole new technology condensed charge technology which we have 18 different devices patented medical x-rays fast computer chips flat panel displays microwave generators the whole series of things that come out of just having this condensed charged but the energy thing\par (21:31) is the one that we're pursuing most dramatically in the laboratory there's also another one another phenomenon called sonoluminescence and for those of you have been interested in research with water this is pretty interesting if you have a turbulent fluid that bubbles in the fluid this vacuum pressure force will collapse the bubbles and it's now been studied in the laboratory that when those bubbles collapse they put out intense bursts of light in 50 picoseconds you can get a hundred thousand photons out of one little\par

(22:10) bubble and Julian Schwinger who's Nobel Prize winner in physics has shown that this energy comes from the Casimir effect in other words this is a conversion of vacuum energy into another form in this case light heat radio waves so we know of a laboratory that has some experiments going in which they were creating turbulent bubbles and fluids and then measuring the energy in the water by the heat and they were getting over unity efficiency and so we have now arranged to have those devices shipped to our laboratory and we're\par (22:56) going to do a very detailed study but in this case we're talking about kilowatts of excess energy what right kilowatt now people often think that well if you come up with a new energy idea the oil companies will squash you like a bug it's not true that myth I don't believe it's true once we had our laboratory results we applied for our patents one of the first things I did I went to Pennzoil and I briefed the president Scottie Holland pres pennzoil I went to Texaco and briefed the research director I went to these\par

(23:41) oil companies and told them about the potential of this new energy source what would be the response of their corporation I didn't tell them we had it just in case then they'd get a picture right but I said it's possible in principle what would be your response their response was we would absolutely welcome it because their resource is running out when they draw small amounts of it out of the ground and make drugs and plastics and nylon pharmaceuticals they don't use that much of the resource\par

(24:21) and they have a large profit margin but when they draw it out of the ground and dump it in automobiles and dump it into heating your house it uses up an enormous amount of resource and they have very little profit so they said they would be glad to have some other energy source come along and take this burden from them they said the way they see it it's as if you were heating your house by burning van Gogh's and Picasso's really ridiculous no they also said that if these new energy sources come along they would be the first to\par

(25:00) invest in them to make the refineries more efficient so I think the myth that they'll stop you just simply isn't true we've worked out our own development strategy to avoid difficulties with competing with other industries for example we might think that the Mideast would not like this development even if it's okay with the refineries but the way to overcome that is to go to the Mideast people and ask them to underwrite the new development so that that can pull the plug on their potential competition the nuclear\par

(25:52) industry also does not have to be threatened by the development of these sources because you can go to the nuclear industry and say you've got your magnificent billion dollar plant here we're not going to bother that what we want you to do is pull out those nasty radioactive rods and throw them away and drop in our new devices and then you can go to the public and say we have gotten rid of radioactive pollution and we're reducing the price to the consumer so it could be a big win for the nuclear\par

(26:23) industry and they can continue to use their power plants I'm going to talk about that in a minute right here skip the generator in the garage stage we think although you could we think it would be better not to do that and I'll try to explain why with the electric power utilities the way you keep from threatening them is that you don't want to have everyone have one in the garage and unplug immediately because the economic chaos would be too big but the electric power utilities are having it meet increased capacity\par

(27:14) requirements all the time and in the United States and must satisfy a Clean Air Act which is very difficult and so you go to the electric power industries and say ok as you add new units to meet increasing demand and need to meet clean air requirements don't build more of the old kind just add our form because let's face it even if we had generators up and running it would still be a couple of decades before you could get them all distributed around anyway so we think you'd skip the generator in the garage\par

(27:52) stage instead you go to a TV manufacturer you would go to a washing machine manufacturer a dishwasher manufacturer and say ok on your next new model instead of having a plug that plugs in the wall have these never-say-die batteries in the back and so that way as units become obsolete new units get introduced without plugs and so you slowly unplug from utility companies instead of doing it all at once there's economic didn't most people are not going to go out and buy all-new equipment that's right that's right so \par

(28:41) think that's that's the way to avert it and of course there are always these special-purpose things which special units can be built for and those will just develop as they develop [Music] of course at the conference I will give you know some more of the technical detail without making it too technical but so what's the present status realistically from our standpoint first of all it's scientifically sound this is not pseudoscience the Casimir effect is a real effect it's known to extract\par

(29:21) energy from the vacuum absolutely accepted by physicists it's certainly embryonic in development because I'm sure none of us arrived here today in an automobile powered by zero-point energy so it is definitely early stages of R&D when investors come to us and we do

have investors in our laboratory we tell them it's high-risk infinite payoff so but it is high risk so if you want to invest money in something that you know will make money in the next five years maybe you wouldn't invest in this but if you\par

(30:02) want to live your old age out as a trillionaire or maybe imagine you would so for workers in the field our feeling is that just the 20th century may go down in energy terms is the nuclear age we think the 21st century will be the zero-point energy age that's art there I'll be glad to answer any questions and we just open up for discussion because there are other people here who know considerable amount\par

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The Secrets of Hal Puthoff - YouTube\par

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Transcript:\par

(00:00) Oh [Music] [Applause] [Music] [Music] welcome to new realities my name is Alan Steinfeld and on this program I like to bring together the latest in scientific spiritual quantum research tonight's guest is someone who is an expert in all these fields and he's developing now a foundation for using zero-point energy as inexhaustible means of replacing this oil economy and giving the world the\par

(01:07) energy it needs to to live in the 21st century he's also one of the originators of the remote viewing program that the CIA used for psychic spying and that's a whole field of study as well so his name is dr. hal put off with these titular pen studies in austin so you're the developer of basically these two divergent fields the remote view instrument and then the zero-point energy it is there anyway that these two come together that's not clear from a scientific standpoint whether they come together but there's at least the\par

(01:46) possibility that at least in the case of say psychokinesis something like that could be Co hearing of this so-called vacuum zero-point energy but it's not up to a place where we can certainly make a connection so zero-point energy basically is you there's the vacuum or the void has fluctuations within that that are are energetic they're but they're vibrations in the sense the void is not empty the fact there is no such thing as a vacuum that's right originally physicists thought that empty space wasn't a truly\par

(02:23) empty right but once quantum theory went forward it was found that it's a result of Heisenberg's uncertainty principle that there's always some jitter going on that's unbeatable okay sorry so it turns out that once quantum theory came along it was recognized that this is an inherent part of nature interesting and at first the enormous energy that was said to be an empty space seemed to be so enormous that physicists thought well maybe it's a mathematical artifact we don't have corners very quite right but\par

(03:07) then the experiment was done it was noticed that the light that comes down of say hydrogen atoms when they're excited didn't the theory of it didn't quite match the experimental data then they saw they took them to account the fact that these atoms aren't sitting in an empty boy they're sitting in this or a frothy bubbly former so-called zero-point energy that that would actually affect their orbits somewhat and then they can match their any experiments so the next step was well okay this is real but it's not very\par

(03:41) important it just minor Corrections to atomic calculations or something but then as

time went on again realized it played more and more of a central role for example the fluorescent lights for electric discharge in it excites the atoms and then the atoms emit light and and they get lightened by process called spontaneous emission spontaneous emission is sort of like the equivalent of sitting a pencil on its point and then falls over in this case the atom is in an excited state that's sort of like a pencil on its point and it\par

(04:15) falls down emits its energy and the first was just considered I mean Einstein had coefficients for stimulated emission as we have lasers and for spontaneous emission and there was a considered separate phenomenon we now know though that spontaneous emission isn't so spontaneous it's actually brought about by the quantum fluctuations so the very reason we have stress of lights actually depends on the fact that empty space has this underlying quantum energy well that idea first came out and was pressed forward\par

(04:46) in the eighties there was an immediate test because it still was sort of skeptically looked at okay well let's make a cavity we'll put atoms in it eliminate the modes so there won't be any zero-point energy in those modes and in that case the excited atom should stay excited right they built it and it worked they were able to actually show that if you reduce the vacuum fluctuations that the key frequencies that do stimulate this event to occur they actually don't occur they don't occur so that you you narrow\par

(05:18) the gap within these fluctuations I mean there's actually some control over the fluctuation and this is what you're going for in your research to develop a way of tapping into this energy exactly the first person to recognize that the possibility was Hendrick Kassner he was a research director of those laboratories and this energy is electromagnetic in part and so just like if you go into a shielded room and you can't hear your cell phone or something because the room is shielding similarly if you could have a region of space that\par

(06:07) you actually shield partially shielded fluctuations and cause there to be a deficit in between and it turns out that when you do the calculations that deficit results in the radiation pressure associated with a deficit trying to push the plates apart it's not as strong as what's outside trying to push the plates together plates come together bang they hit they create heat so there you have some slight conversion of vacuum energy to heat so that was the first sort of demonstration that it could be tapped at least in principle it\par

(06:38) proved to you that this is an impossible unlimited source of energy that with the right kind of details or materials that you could somehow get to that's right when you calculate how much energy is in there in a region of space Fineman and others have said well it's at least the order of nuclear energy's even in empty space so it's a case of trying to find out well how close are you to actually get into this you know I mean like you said like we talked about earlier Edison he experimented with different elements or\par

(07:21) materials before he got tungsten to create the light bulb I mean in fact in our proposals to our investors we actually use the innocent story to point out you know this may take a while there are four or five techniques and principle whereby we see it might be doable but we're still basically anyone working this field is still looking for the right engineering set up the right construction to do it turns out that this effect in general you get the most energy at very small levels so may require a lot of nano machining or\par

(08:00) something and so unfortunately it's not like a big fire they could just ignite microscopic well you're confident that it will happen that you will be able to get what you're going for I'm confident that eventually we will not be confident about is stating a specific time specific timeline certainly help us within my lifetime and I expected to be within the lifetime

have you had remote viewers look and see what this substance is or possibly you know using some of these other areas to kind of tune in because it's actually \par

(08:35) have it although some have volunteered that they've looked on their own and they sent me data but it's still not you're looking for a material is that what you're actually looking for probably looking more it's gonna involve materials it's also going to involve geometrical shapes but also they actually do involve the process I mean just to give you an idea for example the example I gave plates coming together that's a very mechanical thing another case is to make arc discharges sort of \par

(09:09) microscopic ball lightning and there you get a plasma that gets squeezed very similar and in other cases you're setting up bubbles in liquids with sound waves and then the bubbles collapse and there's a possibility that also release syrup on energy Schwinger is a Nobel Prize laureate wrote a number of papers where he felt that that was could be a mechanism that might show up in some of the medicine so all these different approaches are like while they differ from each other you played electrical discharges you've got bubbles \par

(09:45) being created in liquid others we've looked at involve gases so zero-point energy back it's a medium that that things can travel through right the fluctuations are like let's say water water sort of like looking at the electrical or electromagnetic equivalent of the froth at the base of a waterfall Oh a lot of random motion that's why generally we don't notice it's there because it's all random and therefore any effect in any given direction is going to be cancelled out by effect in an opposite direction \par

(10:20) although there is one case do you notice this energy is there and that's in inertia so-called or if you're standing on a train it takes off with a jerky and to flatten your back you know what is it that knocked you down it's actually ran into this wall of Energy's very similar to if you put your hand in a pool and you go like that you'll feel the back pressure in your hand similarly if something tries to accelerate you through this that can fluctuate in energy the back pressure that knocks you down in the case of the \par

(10:54) trains is actually this so the background fluctuations is holding mass in place in the form of inertia is that is that what help you hold it in place unless you apply a force or as it turns out unlike throwing something through the wind if you're just going at constant velocity there's no resistance either it's only when something tries to accelerate you then there's a resistance proportional to acceleration that's why you have to apply a force proportional acceleration force equals mass times acceleration to \par

(11:26) accelerate because you're trying to beat against a resistance force which is proportional right so yeah I think pretty much but it's sort of like there's this medium of that things existent but it's not quite this dimension of existence right because it exists a kind of a void space I mean how does it apply to non locality you know where you know let's say a photon here is affecting another quote so I'm there and they say that instantaneously happened is that has to do with this this medium of the words there's a \par

(11:59) connection and that is that this vacuum fluctuation energy which I'm concentrating in the electromagnetic part actually there are other person also have all wavelengths and frequencies so that means that not only is it wavelengths of few centimeters or something but there are wavelengths that are as big as the universe so in that sense we are not just figured let's believe or metaphorically we are literally in touch across the universe because our atoms are bathed in this sea of energy that includes all these \par

(12:36) wavelengths some of whose wavelengths stretch out you know across the solar

system or whatever but the thing you mentioned about this quantum correlation and nonlocality is possibly somewhat different we haven't actually been able to pin down the chauvinists epe chauvinist among us think there isn't a direct connection right but as far as the scientific community goes as you to be shown those are similar or different phenomena that has to do with the fact that there is a small school of people who think that you might explain\par

(13:16) much of quantum theory just by taking into account the effects of the vacuum fluctuations and that kentuc shoe a shoe there\`f5s or put energy theory has been used to derive a lot of results that you would think you needed quantum theory for but actually you can get it by this path so the question is well can you get everything in quantum theory by this parent for example nonlocality yes yes this is still a relatively new area pushing into this area so we don't have the answer and the whole space-time thing where you talked about contracting\par

(13:46) space in front of a ship and then having it travel that warp speed that has to do with this background but that's right having changing the density as we say changing the polarizability of the background there's another so you're accelerating through the vacuum when you say you're accelerating within this quantum fluctuation it has an effect on that background field that that is certainly the case because it's essentially pushing aside the vacuum fluctuation some degree and that's what's causing their resistance we call\par

(14:23) inertia but again for example in the case of the Casimir plates was a simple example you've got a depleted area of zero-point energy here so you've actually got forces it will push you in that direction down into this depleted regions but how would you actually entrap space-time to do that what what effect did you put out there to have that well we know from switching over the general relativity side of it that if you look at the equations whether you're using standard general relativity or some of the other\par

(15:02) approaches to general relativistic time effects and very strong field strong masses the mass of the earth affects the space around it which thinking in terms of zero-point energy is affecting the distribution of zero-point energy so if you go to that equation $F = MA$ or the mass times the acceleration equals the force if you create a force you can generate a mass that would have an effect on things you might generate a force and the move of mass start to accelerate it or what you'd really like to do is just scoop\par

(15:41) out the energy in front of us and the energy behind it would just shoot us forward so manipulating the density of the vacuum polarizability of space-time metric all those words relationship with each other that would be the way to do it and that's possible that's not just a Star Trek concept but you've seen no we know I mean small effects all of general relativity for example is based on these principles and we can calculate well gee if only we had so much energy right and then we can make this big effect like a\par

(16:15) power of spaceship and so on it's just that we don't have the engineering tools to do it right now and frankly those of us are working on I think there's still something missing you know theory because it's so hard to do we don't see that it could ever really be done and you you know maybe there's some evidence that there are spaceships out there that don't belong to us what else well in that case they must have gotten around it so there may be some unexpected factor that suddenly caused the\par

(16:50) resonance to occur where with a lot less energy you can get a big effect and that usually happens in science that they back into a solution instead of right and usually it's even

by accident in fact and even though we think we're smart enough that we should figure this out we have something we call the maverick inventor program and the idea of our maverick inventor program is that smart as we think we are and maybe some guy in the garage is half crazy thumbs across something nobody'll pay any attention to him he\par

(17:21) doesn't have good instruments because he didn't have enough money to buy them so his measurements are all messed up but nonetheless you may actually stumble on something so who's gonna pay attention to him the academics aren't corporations are so we have our mapping invented program where we put out the word on the internet and elsewhere saying you know if you think you beat the system if you think you come up with a novel energy source or pulsing source bring it to our laboratory will investigate it so we've\par

(17:48) investigated many things brought to us they all go up on the website so great great gory detail you can see well you know and I thought you could use this if you what is that somehow inert gas represents a kind of boundary to this dimensional space and you know like electronic with the electrons filling up certain shells so there might be some kind of way to get beyond that boundary that inert gases represent in order to access somebody in between places in the quantum fluctuations does that make sense well it turns out that some of our\par

(18:24) best experiments that actually have shown what we call over Union unity energy generation we have involved striking spark discharges in noble gases and as a result we've actually seen some evidence for energy generation or energy conversion that was a good news the bad news is was that it was at the Nana watt and the devices were immediately corroded and didn't last and then all attempts to scale up those particular devices turned out that the loss of scaled up faster than the good effect so even though we have something like seven\par

(19:07) pans been current have been patented and the Patent Office bought off our claim which was these were devices to convert vacuum fluctuation energy into some other form and then the last week we haven't actually come up with the right connection yet right well philosophically speaking if we can just a little bit into that if let's say we do come up with this source that we tap the boy the free energy that's out there doesn't that change the whole social psychology of your society that says yes\par

(19:43) there is a free lunch I mean willing to have a you know you'd ramification I mean psychologically I don't have actually a lot of ramification sociologically psychologically for example from the geopolitical standpoint when you have an oil economy and you're tied to the geopolitical sources right this energy which is everywhere is ten cents more democratic right doesn't matter principles happen it also could in the long run as people really have soaked into their philosophies affect things and no way I've thought of and that is\par

(20:25) our entire physics structure is hierarchical we have the Sun it provides energy to the earth it grows the plans you know we obviously have a hierarchy of where we as beings and individuals get our energy from right on the other hand this is not a hierarchical process it's a broad scale process and so it's like really a convergent from a hierarchical attitude toward a whatever you would call because there's and science always thought nature as a lie isn't the basis of science is to kind of you know make our\par

(21:13) life here more comfortable in today yes but it goes through phases where nature is an enemy to be conquered and variety and then while nature is something to be accommodated

to and interacted with and generally speaking while we see it going in both ways obviously we have appliances that make drudgery in life easier and then we have hydrogen bombs right so like five you know exactly so similarly I had look on zero-point energy as being like those they're a tool but in the end it's what people do is it that counts and and unfortunately\par (21:56) it would appear that our sociological ethical levels are barely if at all keeping up with our technological prowess maybe that's what consciousness itself is waiting for to have this invention I have enough of you challenge that's okay we don't really have to get our act together right I mean was Tesla on to anything because he you know the stories that said you could stick one of his lightning rods in the ground and get energy is there any truth to the Tesla devices certainly Tesla was a genius\par

(22:31) yeah no doubt about that and it's still hard for electrical engineers to go through school to really get their mind around how some of his complex AC machinery operated I mean he's a genius and he also had a strong intuitive feeling this was before quantum theory he made the statement which I can't quite remember the exact quote but he said he felt that space was full of energy if it was static wouldn't do us any good but if it was dynamic we would yoke man's inventions to the wheel work\par

(23:05) of nature or something like that and of course now that we you know zero-point energy vacuum fluctuation energy is dynamic it does fill all of space you look back and say well his intuition was right although I didn't have the details down and as far as the stories of the various devices he made some of them like his attempt to generate energy with his antennas and then propagate around the world it makes some sense but it's not clear that really wouldn't work we thought there's some more urban myth\par

(23:43) kinds of things and while he built one of these 300 generators and ran a car but no one's been able to really pin down that's not in his patents known as really is basically anecdotal stories so it's hard to know just how far I mean you're looking at a genius he comes up with things you don't come up with a lot more and then you said well since these are true should I believe those and it's just hard to evaluate until we can cover the same track but there are a lot of people interested in\par

(24:12) testimony well if anything could be true Newton we know after developing as more as a thermodynamic study alchemy for the rest of his life and maybe he was onto something maybe he was right crazy but you know in reading some of the material is something called the cosmological constant where the relationship of the electron is somehow related to the size of the universe yes and some of the zero-point energy modeling that I and my colleagues studied and we did come up with some ways of relating the size of the universe to quote the classical size\par

(24:47) of electrons so and that relationship comes out of zero-point energy modeling so we're pursuing things like that right and that in that sense zero-point energy modeling the intense level we're pushing it it's like trying to get a step deeper than the usual equations and usual effects so someone still needs to mature before we're sure under something we could the universe itself be an electron and some greater vaster of Babbo what has been talked about the fact that the universe you look at the numbers associated that\par

(25:24) they could itself be a black hole we where they in a black hole yeah who knows how many others are out there actually this idea that you just mentioned about well couldn't we be like the small component and they're much larger there are a lot of serious theoretical work going on now by cosmologists about the possibility that our whole universe is just one of

many yeah Linda Sanford is Russian and who's now there at Sanford is one of the most respected cosmologists he's the opinion that well this universe got spawn\par
 (26:02) there's no reason why another one couldn't today is no better than yesterday so maybe is like a fractal tree and Universe being spawned all over the place on a continuing basis we've just happened not to be connecting up with them but then even that theories grown a step further where now people are talking about him and maybe sometimes these universes run into each other and then you have a big release of energy maybe that's behind some of these many big bangs quasars or whatever so these days cosmology and astrophysics is\par
 (26:34) outstripping science fiction so fast you can hardly keep up with and the theories are proliferating and in the old days if you had a wild theory might be Sean but these days the data is coming in so fast and we have so many inexplicable phenomena going on basically it's okay in physics now to have really wild theories that you want to try to check against today well then what's one of your favorite inexplicable theories really where the energy from quasars comes from our gamma-ray burster z-- their longest\par
 (27:10) amounts of energy there was a gamma-ray burst or just a few years ago that basically as far as we could tell released more energy second only to the Big Bang's so accounting for that it's difficult and there are actually a number of papers have been published on the idea that maybe it was in fact there are papers called Casimir collapse of supernovae indicating that maybe some vacuum energy is being released in some of these phenomena obviously more that we don't know that we do know it's open\par
 (27:46) later I mean now it's really getting down to the embarrassing point where we recognize that four percent of the universe we can account for and the other ninety six percent is in dark matter and dark energy and we don't know what any of them are right there's all the string theory and integer venture and multi-dimensional so I mean there could be something behind the zero point vacuum energy I mean what it seems like in some of the other literature it may be some of the metaphysical literature's\par
 (28:16) there's a grid that then gets some coherent that lines up the the quantum fluctuations you have any evidence of some kind of other-dimensional type grid that's behind the fluctuations in my case I haven't done a particular calculation and published it actually in Physical Review a where I took a different tack and that is you've got all these charged particles all these atoms electrons and so on they're all jiggling around zero-point energy C and radiating away and then in the given atom is caught in\par
 (28:56) the radiation pattern of all the other jiggling particles so I did a cosmological calculation and found that it appeared to be electromagnetic equivalent of putting a speaker by a microphone and getting the squeal particles are all radiating because in the other particles a jiggle and then they're jiggling as a feedback mechanism cause them to radiate because the first product and so this thing is like a self-perpetuating mechanism and it turns out that the frequency distribution is your point energy is goes is the\par
 (29:29) frequency cube frequency is a third power so there's more and more energy in the higher and higher frequencies and this particular calculation predicted that QE frequency distribution so in my modeling I don't need an extra any extra dimension but I know there are other people who consider the maybe zero-point energy is something pouring in from another dimension as happens not to be back on tape well there's something behind it there's another another more subtle layer let's say there is this you\par
 (29:58) know fun that exists and then something is generating it well yeah actually this is an

area that I and my colleagues at the Institute for Advanced Studies are looking at right now because even when you say okay I've got zero-point energy say well what exactly is that well it's electromagnetic what do you mean some electromagnetic well it's got electric fields and then it feels waves okay well what is electric field a wave in what and so in some sense unless you just want to draw the line and say no it's\par

(30:30) mathematically worse and I can't worry about it there are still the questions well obviously there's something even deeper than that because we're not describing what this room energy electromagnetic waves are waves of what exactly what what so they get into is this whole idea of consciousness you know where you're saying that you can't really show or you've been able to shield some of these zero-point energy do but you couldn't shield it from a remote viewer you know so like consciousness somehow is traveling in\par

(31:02) some medium or a part of some non-local aspect that's even beyond these fluctuations but certainly has got to be the case and these fluctuations are handled by normal physics may appear in the textbooks and so on but no one has a model for how something like Ramon can really work so obviously there's a lot more going on right but there's probably is a science or there's some may be more subtle medium in which consciousness thing can travel or you'd be reasonable I mean certainly as a physicist I assume\par

(31:37) if it walks it's physics so if it travels even spiritually it's physics but you know it's interesting that it used to be ages ago religion was the big thing right and then a certain point in our development we carved out a piece of religion called it philosophy and then we carved out a piece of philosophy and call it natural science and in that transition I've always marveled at the fact that what was alchemy in became chemistry what was astrology became astronomy what was metaphysics became physics and science\par

(32:18) gets to go to my psychology friends what was demonology became psychology and that process was a process whereby we're trying to get rid of subjective element to make it totally objective unfortunately in that process we somewhat threw out some of the baby with the bathwater but I think it was a necessary step to go through to get this but now that science has gotten its legs and somewhat strong it's beginning to reincorporate so for example we had a stralla ji saying you know things depend on the stars I don't know chemistry\par

(32:54) there's no subjective factors but now it's been recognized pretty much by scientists or open-minded that there is a so-called Mars effect that is people born under the sign of Mars happen to be you know fill up the books for athletes similarly numerology attend became mathematics so the magic of numbers kind of went away but now that we have Mathematica being realized that principles like supersymmetry are kind of saying there is a magical aspect of mathematics assembly go from alchemy to chemistry but even quantum theory says\par

(33:31) the observer you know is maybe the center that effects everything around it so I mean just by having the observer effect something means that you know consciousness is sort of a center point of the universe each individual consciousness let's say is the center of a totality I mean that's how I see you know certainly and some physicists have really pressed that point oh ma Eugene Wigner was especially press that point that really as long as we're leaving consciousness out we're making a mistake\par

(34:06) it consciousness is somehow involved in the observation process and certainly and from a physics standpoint any measurement which yields information to an individual obviously somewhere along the line had consciousness involved so it's a case of all just how

much wasn't involved in John Wheeler is one of the icons of physics has made a big issue but it's a participatory universes his phrase rather than just oh just a Temari then we have an effect of the quantum fluctuations I mean was it your initial going into the remote\par (34:48) viewing a field based on of quantum understanding the story about that right I was interested in whether quantum physics could be extended to account for living processes and at that time there were some ideas kind of floating around so this is what sort of got me started looking at consciousness issues and doing that experiment that ended up showing up on my doorstep but you also told the great story about how you started to investigate levitation well that was later later on when we were looking at the literature about\par (35:33) so-called psychokinesis and in fact we weren't getting any in the lab really but we we did get some magnetometer experiments with mental projection yeah we're basically someone's not there and we had sensitive magnetometer radiometer actually and on a random schedule that was spit out by a random number generator the person had to make something happen or not you got statistically significant evidence but they're all a really small scale effect so that's when I did think of you know we have a literature where\par (36:14) people are claiming it you know levitating Saints or whatever so I decided to look in the literature I wanted to see the descriptions of these phenomena see there's some physics that we can learn and I must admit I started out skeptically as well as probably maybe the church and bragging about their magical people or whatever when you actually go into the records it turns out Weston that way at all it turned out that somebody out in the boondocks was levitating it might be a very profane person and so in fact at\par (36:45) the time the church went out to debunk it well there's a person who apparently floating so you can't say it's not happening so the next line of defense was to take very careful notes to show that there are certain subtleties and nuances that Memphis was diabolically inspired not God inspired and in those notes the physicist recognizes description of general relativistic kind of phenomena like what like for example the person might rise vertically and then swing horizontally by the model of the day which is some invisible demon to\par (37:22) pick the person up you still expect the hair to hang down and in fact the hair would hang down parallel to the body and the dress would hang down parallel the body as if they were in a space warp somebody else got too close they could get caught up in it another aspect was so we got too close to their feel they could get all that's in the literature that's language as well and you wouldn't expect that we'd expect that especially by the priests and so but they're there other more subtle things for example as described\par (37:54) with people's faces would glow like molten metal they say well you know that's strange and that turns out that you know we've probably heard the term redshift heavy gravitational stars and so on the light comes it's redshifted well in an antigravity condition or a levitation condition it would go the other way you get a blue shift so you could easily imagine that okay if somebody's in a levitated state then the heat spectrum that you don't ordinarily see might blue shift up in the lower\par (38:28) part of the visible spectrum and you would look like you were going and so there are little subtleties like that and I look at a woman they didn't know about general relativity so they didn't know how to make this now right so what do you think they were doing to get to those states and what material well this the only thing I could imagine is that they were affecting the space-time continuum and that probably means you know where is the energy to do that with the vacuum fluctuation energies there so\par

(38:57) they must have he must be Co hearing the macro function energy and so actually is because of that that I started looking at a vacuum fluctuation model for gravity and and then eventually inertia and so some of that was actually inspired by saying okay well they must have cohered the vacuum fluctuation energy so it must be that gravity is somehow a redistribution of vacuum fluctuation energy and then I found out that in fact Sakharov famous freshman physicists dissident and so on was actually the first to come up with\par

(39:32) the idea that okay we've got general relativity we've got an Einstein's equations that's all fine but where did these equations come from they just say if you have mass here energy here space gets worked here there's this is just a mathematical equivalence where does it come from what's it do - so he took a level deeper and he came to conclusion that it was in fact a redistribution of vacuum energy so if someone has the ability to mental we go here the vacuum fluctuations then they could levitate \par

(40:05) would think that that would be the case did you know I keep waiting for somebody to show up he can do that because I have a whole list of experiment well can egos want a Mesa Ingo Swann affected the Clark receptive hard to pin down exactly what mechanism was going on it was he was affecting a very sensitive magnetic device I need something to test out the zero-point energy theory more robust you need some but K have you been able to measure a me said you couldn't people could move these magnetometers but has there any been any\par

(40:46) measurements of the psychic kinetic energy coming off of people yeah not really I mean people have claimed to make some measurements sometimes I know in another laboratory where people would claim to psycho kinetically cause a magnet needle to rotate then they would leave and it was found that if you put a new compass in there it would rotate so the structure of the space was somehow restructure to some degree and it only faded over hours now I'd like to get in there if we had really good devices for measuring is your point energy and had\par

(41:31) long enough time it'd be possible to make those measurements very no no one is doing but this whole idea of consciousness that somehow is beyond the zero-point energy field and also maybe beyond space and time like you've done to some of the remote viewing experiments sort of implies that you know we have some key within us to controlling reality and and the fluctuation certainly what we saw in the remote viewing was people who do things that as physicists we couldn't explain especially in the future the viewing\par

(42:06) viewing of future events I mean that really wipes out most theoretical modeling evie even models that involve the possibility of forward and backward propagation of light ways still can't handle somebody describing an event takes place in a week or something how would you let's say you hypothesize how would you in physics terms or maybe some far-out physics explained it means well one depressing way to explain is that it's all cast in concrete from here to infinity or whatever and we're just\par

(42:45) marching through the slideshow frame by frame and everything there is no such thing as pretty well it's all cast and so somehow somebody find some tricky way to jump ahead a few frames and say what's happening that might imply that you know we don't have free will so that's actually an get into fist sophisticated arguments where you can actually make all those things kind of work out but well what about the yeah but they weren't always right about pretty you know forecasting the future so like yeah about parallel universes or\par

(43:22) or each moment there's a split in the possible futures that can happen from this

moment on depends which path we take is in fact to show how sci-fi physics has become there is a serious theory and by serious I mean it's published and no one can hit balls in it called the multi worlds interpretation the many-worlds interpretation of quantum theory which says that at every instant of all the quantum possibilities everything that could happen does happen and so there's a you that just said this to me yeah but at some quantum level\par

(44:01) there was you that decided not to say that to say something else and he's going off and right and so but it's so seemingly absurd from the usual viewpoint they don't think any physicist really believes that all possibilities fact unwinding in the future but they've been able to mathematically prove that that's possible well they've been able to mathematically prove that if you have that physics set up with that understanding it doesn't violate anything we observe because it just turns out we're following one of the\par

(44:34) tracks so it's like a theory you can't disprove right I don't think anybody no no it's out of a way of proving it and unless you actually get access to alternate realities but I have to say no physicist really buys it but it's in the book says my name everyone lists various approaches to quantum theory that gets listed because it can't be disproved well so you then you're thinking though have been through many levels of openness right and we came to remote viewing very you know thinking that it\par

(45:08) wasn't possible and you expanded it not only did I come to remote viewing thinking it wasn't impossible 13 years in the program every time I went in to do a session with remote viewer I would ask myself how can I be doing is why am I here this can't possibly work I have all the same resistances bubbling up and then there'd be some spectacular results and face it so I mean we do have to reevaluate our whole understanding of consciousness physics and I bet you yourself even Remote View right I mean\par

(45:45) you were also actually one of the conditions of the program of the government funding actually from people at CIA who started the program was we learned from the LSD days the experimenters should not get involved in their experiments so we will let you have this from program one condition and that is you never never never yourself promote do so you know looking forward to polygraphs and so on yeah we didn't but now they ratted the program have you tried occasionally for fun yeah but there is something too I mean you gotta try then\par

(46:24) you do get images lugging into your mind and it's coming from somewhere yeah well I mean certainly as we saw even when you've got a remote viewer you've got an interviewer and you have some target you don't know what it is and the person comes up with something that he knows just can't be right the interviewer is sitting there really disgusted he knows what the person is saying can be right they both try to get rid of the same age and start from scratch still keeps coming in so finally give up\par

(46:57) and put it down and it turns out to be correct so obviously the information is there and has a certain robustness that you can't just discount so taking it all together you know the quantum fluctuations of remote viewing I mean there probably will be a place where they converge in since that consciousness is somehow a key element in all these phenomena yeah as I say as a physic chauvinist okay I've got physics I know I've got some advanced physics that we're pushing I got this island of remote viewing this island of\par

(47:37) consciousness I know they all go together because they're all pieces they're all pieces of the universe yeah and really if we had truly the physics of the universe everything would

be in there so the fact that everything isn't in there we know we had a lot of a lot of work to do but I make myself feel better by realizing that there's going to be a 26th century physics 32 second century physics and whatever that physics is they're gonna look back at 21st century physics to say oh how could they believe that stuff is\par

(48:12) so limited it's so primitive so clearly as time goes on we're gonna we're already getting little snippets of connections between these things but we really have a lot of work to do I don't have to say nothing makes you more humble than being a physicist facing the realities and you realize you can't stitch them all together yeah but you have an open mind which is the best thing about you and if you have an open mind no but I mean you your work is connecting these dots yeah that seems to be my destiny in life on the physics\par

(48:52) stuff I'm on the edge of it obviously the remote viewing we're on the edge of consciousness things and some people just sort of have a makeup that if it isn't about on the edge it's boring and so I haven't be one of those people but there are more and more these days well it's great it means we're in a more open society with more breakthrough that's right and also even just one thing that does feed it is our technological prowess and our technological progress are opening up things faster than we\par

(49:23) even count for them if something comes down the pipe one day at a time you can kind of incorporate it okay that's fine but now stuff with our super telescopes or whatever let us look at back in time edge of the universe that we can see and the microscopes are looking at quantum phenomena where we get we now make lasers out of single atoms wow I mean stuff just goes on and on and so the stuff is coming in such a firehose that any physicist realizes that you know he's not able to integrate all this stuff you know we really have a long way\par

(49:59) to go there's a lot of data in our and data overload to try to that's the exciting times we live in and so on thank you for all your hard work why I actually get paid to do this in living songs I'm really a lucky guy me to be it'll be for the little the day you say yes we got the answer to how to tap into the zero-point energy field yeah recently I was a DoD panel January of this year where we were tasked with looking at how do we accelerate movement from fossil fuel economy to a hydrogen economy and so I got to spend one\par

(50:50) afternoon presenting what we call the wild card scenario - suppose tomorrow we suddenly discovered zero-point energy as as a source so we had to sort of wargame you know well how would we handle this you know what would we do how would we announce it who would be in charge you know would this be primarily government very corporate driven I mean these are really complicated issues and they had a magnificent computer integration system or all these ideas and went into this elaborate expert system and it was trying to you know come up with an\par

(51:27) optimum path whatever you deal with this could be Nobel Prize material like me but as a humanist you also have a perspective on just the kind of immediate situation how it affects people in their everyday lives you know it would be I mean it would probably do something to religion I would think right and the belief system and you know a god or oriental Jean was heavy heavy belief systems so certainly defined that we're all interconnected were all part of a fabric of space time energy and it'd be harder and harder for an\par

(52:17) individual to maintain that he was an isolated unit and so the more and more we find that we are connected into the cosmos as a whole I mean finally in my way of thinking and trying to come down we would end up finally with a unified view in which energy and

information and process and dynamics were all integrated also it would affect all of our philosophical of those religious views and our economic if do you have a question Jim one question string Theory's I bring that up because unlike that you're summing 11 Direction\par (53:05) dimensions based on a mathematical concert do you feel that's a rational way to go or said artificial should we be searching for our live inventions yes so how can we deal with it well string theory is an interesting challenge and it has made the headway it's made because the mathematics that have been developed to look at well what would it be like if we had an 11 dimensional universe or whatever have predicted some unifying aspects of electromagnetism and gravity and so on and even accounting for the particle structures and so on so\par (53:44) on the one hand is a mathematical tool it keeps kind of spitting out some things that we know are true and hadn't really thought about it account for before so it's like you can't exactly say well I'm just not gonna bother thinking about that on the other hand it's also one of the disasters a strengths area it doesn't look like there's any way to actually do an experiment to prove whether strings the string theory way and 11 there's a way to go anytime soon and so that means you can really run amok with\par

(54:24) mathematics and you know maybe not get anywhere and but it wouldn't be probably to tell if you were getting somewhere whereas most Theory you can sort of go out and test it to see on the other hand there are certain implications of it that say well there's some experiments that will maybe we could accomplish something in the lab so one specific prediction of some of these multi-dimensional theories is that Newton's inverse square law you think about whatever where does an inverse square law come from it comes from the\par

(55:00) fact that you got a sphere here and you imagine lines of energy or gravitational field coming out as you go to bigger and bigger and bigger sphere x' the area grows is the square of the radius and therefore the density of lines coming out through is going to drop as a square and you say okay but suppose I had not this two-dimensional sphere suppose I had a 3-dimensional sphere and I'm spending in a four dimensional space or whatever well then turns out you wouldn't get an inverse-square law you get something else a cube law so people\par

(55:41) are doing actually going to the trouble to do experiments in laboratories say okay well let's measure Newton's law at micron distances a millimeter distance is micron distances and if in fact these other dimensions are there when we get down they're not too far away or maybe they're kind of big we could actually see an experimental result where we had a deviation from the inverse square law and very tiny distances so people are doing that at those experiments they've gotten down I know they've gotten down\par

(56:14) to millimeters and also they've gotten down to tenths or hundredths of a millimeter yet so those areas where we say okay maybe we're right on the edge that we could determine where there's some extra dimensions here people are doing experiments so it's - ready to say about strain theory certainly some of the most elegant mathematics you know Brian Greene whatever it's gorgeous stuff from a mathematical standpoint and so the only thing we has okay it's great aesthetics mathematically but is it real well one\par

(56:52) of the promises was I thought that you would be able to predict the size of the means in general means of calculating in the well this is the point where all theories are your foundering - we have these particle electrons a certain size spec amount of charge or here's a proton - here's some quarks they've got some different charges and masses and say okay

you're so smart to get a theory that Bentley why don't you predict all these we can't predict a single one we don't have that yet necessarily looks like it's\par

(57:42) going to be successful in predicting it and now they're in the quantum theory the jiggling around anyway you begin to worry whether it's even possible in principle we could ever prepare something very accurately so well whether there's any merit at all but just charge right I mean isn't there that whole theory this in fact my colleague at Institute for Advanced Studies Michael Emerson is specifically working on a model of massless charge right where it's just charge and fields right and then a mass mass the pharisee\par

(58:16) of mass comes out at a higher level is just a consequence of the fact that mass does not exist as fundamental thing but only as kind of a byproduct again to the hindu thing that this is all illusion and you know what they say this is just should forces anyway leaving some of the so-called ether physicists of the 1800s had come to the conclusion that there is only one thing sort of like water in the bathtub you've got waves that go back and forth vortex is go down the drain but it's all made of water right and there's nothing\par

(58:52) other than water so is that true is in your you know what research is that possible it's all just being made of one thing yeah I wouldn't reject it and I tend to have sort of subject the leaning in that direction but whether it's sure or not I don't know we have to get to that because the flow time can go in any direction until they come back protons are very complex because when you think about a photon going through space it's got electric fields it's got magnetic fields it's got spin so right\par

(59:38) away even something as simple as a photon turns out to be complex enough that you try to figure out well why is it circularly polarized or why is this or why is it that so people have said well maybe particles are trapped photons well that may take us a level deeper but no good models actually worked out yet but then you say okay photon I might be a neutrino and a neutrino pairs thought of that well then the neutrino and a neutrino pairs might be vortexes and superfluid vacuum yeah and the superfluid back event just like Turtles\par

(1:00:19) all the way down so it's all possible but you have your focus in one particular direct yeah mikage actually even I'm a physicist I'm a very engineering oriented physicist so I have a lot of focus on how can we make something work do something with it so yes I dive into a deeper level of physics and many physicists do and it's not that I'm trying to get all the way down it's that I want to go a level deeper find out what the options of maybe doing something with this level are and so I'm\par

(1:00:54) focused on actually arriving particularly at energy and propulsion for space travel well that's great it's great work you're doing it's an exciting time to be in this field and there's broad scale interest and government and corporations Nations I do a lot of consulting for all three there's interest everywhere in their ideas ok we have a question if the speed of life is a certain thing and it seems that thought is beyond that I mean well it'd be nice to find out we there haven't really been any good\par

(1:01:41) measurements of the speed of thought beside we tried once actually one of the experiments we did because us they are remote viewers always get bored with the mundane cast we're giving them and so Ingo Swann and another person by name of Harold Sherman decided they wanted to look at Jupiter before the NASA flyby and so we set up a time got the tapes rolling and they viewed Jupiter and especially Ingo this was before the Voyager flyby he found rings around Jupiter and he said well I'm wonder if I met the wrong planner I know saturn has\par

(1:02:26) rings but I'm trying to get the Jupiter but I'm seeing rings around Jupiter don't seem to be very strong but that's what I see somebody said ok well that's the way it goes and then Carl Sagan happened to come by the Institute and we said all we'd like you look at this material is generated by rock your and you know he's a very skeptical kind of guy and you read it I said well how I see two things in here the Jesus stuff you can get out of any encyclopedia or the stuff that's just dead wrong\par

(1:02:57) like rings around Jupiter so in Voyager got there and found out in fact there were thin rings around Jupiter this is really great so what this led to was okay well frickin data from that distance maybe we have a chance of measuring the speed because it turns out that moons of Jupiter go into eclipse at a certain time and it turns out the Almanac only predicts it to within a few seconds or even longer than that so we can eliminate the possibility somebody reads up the Almanac in advance and then tells and so the idea is okay\par

(1:03:37) are they going to see the eclipses of the moons of Jupiter when the astronomer sees the eclipses which means it goes Israelite or are they going to see the eclipses instantly before the astronomers see which means thought was like sort of infinitely fast so he did you know it was a casual experiment it wasn't really pinned down but anyway it appeared that he was seeing it instantly however you take into account precognition right okay well maybe he Precog knighted when the eclipses were going to occur and then reported them\par

(1:04:10) now so he soon realized that it's really difficult to take into account possibility of precognition it's really difficult to do an experiment to measure speed of a say remote viewing area but the quantum field says there's no any way you know if I hope that as time goes along people were getting more open to evaluating these things because in fact they that that could be checked a high velocity or high speed filming of say birds in flight to the point where you could measure how quick was it that they\par

(1:05:13) were in alignment I mean it'd be other factories they have to take into account and maybe there's some other subliminal signal I okay on the count of three we're all gonna turn right and then one through three that we do so you know it wouldn't be a trivial experiment to do it'd be an expensive experiment to do you have to have somebody who's smart knows how to design an experiment knows that this is gonna have many factors and not going to be trivial to do somebody's going to have to pay for the time the\par

(1:05:41) effort and the computer time to analyze the experiment and I just nobody has done again so I don't know when the experiment about speed consciousness their Bell's Theorem it says every point in time and space is right next to every other point in time space it's that in certain well-defined pristine experiments you can show their non-local connections between atomic particles photons and so on so nonlocality is there but when time you extrapolate up to say human being interacting with another human being\par

(1:06:26) we've got Gillian's of quantum processes going and you've got this not a pristine situation could you count on that nonlocality I'm in a certain sense since remote-viewing works you could say well there's non-local access phenomenality is actually occurring well got those experiments with rabbits where they took the babies away from the mother and they did something to the babies and the mother reacted because there was this your biological non-local connection have you seen those I've seen them\par

(1:06:57) reported it's not clear whether that really happened or was there seeing the veil between here and there and on a physics level how would that work I wish I know what we need to do is to you know have somebody who could in fact obviously what would the

physicists like miracle worker come into my lab okay let's perform some miracles here okay now I see what you're doing okay let us set up our instrumentation I performed the miracle again you know we could get from here to there if we had that kind\par

(1:07:49) of access but you know in cases where people apparently have miraculous events kind of occur the kind of spontaneous of the OM under control or even those who have them under control to some degree may not be at all interested and quote demonstrating it to those stupid scientists only interested in numbers question or any science is interested in cultivating those same techniques that people who perform miracles like as long as things like that in order to be able to they're few and far between actually\par

(1:08:28) Brian Josephson Nobel laureate known for the Josephson Junction which is a superconducting effect for which he got the Nobel Prize there's also a transcendental meditative and deep into the cities program and so on so and he tries various kinds of experiments to try to connect up the science he knows which is very profound and the experiences he's having and so there are a few out there and sometimes he attempts to publish them and usually gets rejected but the word gets around anyway so feeling far between they have\par

(1:09:09) somebody who's wearing both hands he aims to be an example it comes to mind well you are because I mean you can quote it off they see Clark it's as you know the physics of tomorrow will seem like magic today I mean the whole idea of wormholes where you can open up a time-space and slip into another part of the universe that's a possibility that general relativity if the equations are right that's a possibility how does that actually work how can you actually what do you need to do that open a wormhole\par

(1:09:44) basic labor no you need a lot of energy yeah that's one thing you need you need to structure it in a certain way so as to fit the vacuum you know we can write the equations for it see how it is it's a little hard to describe physically I mean actually we don't really know how to actually go out and do it physically because there are a little few little things like well I'm gonna need some negative energy here where am I going to get some negative energy well in some sense the Casimir effect is actually considered a negative\par

(1:10:21) energy thing so okay maybe I won't I have to have Kasmir walls around my my wormhole and so we see the mathematics of it can predict it if general activity is right I mean this is enough to make some people say general relativity must be wrong it predicts that and there are some other models that you know more or less matched general relativistic predictions but don't have that effect in them so actually it's some level is still sort of controversial where you could do it but the way the math and\par

(1:10:53) general relativity and signing general relativity is now it predicts you could do it but it would just take enormous amounts of energy just right yeah it's among general relativists and cosmologists they take it seriously it just get published in I mean Matt Visser one of the leading wormhole pharaohs just published an important paper in Physical Review Letters which is the toughest journal to get into where he had just done some calculations where he showed that whereas we thought we needed needed a lot of negative energy we can\par

(1:11:39) actually get by it with just a little bit of negative energy but of course just figure out where to get the negative energy from antiproton colliders but I mean just imagine what Einstein could have been intuitive when he created that I mean can you get into the mind of on sentence he what what was he thinking in order to come up with these ideas I mean have you been able to do that like well now now since we're at reading all ground that has been

elaborated for a hundred years almost or at least 85 years in general relativity\par
 (1:12:17) we can pretty much get into the mind of what he did of course he did it in just 10 years of thinking about things very intuitively as he describes he imagined himself you know riding on a photon away from the clock and the clock appeared to not change time and so does that mean time as depends on your motion and so he thought very intuitively in fact he was actually quite skeptical mathematics says there is a famous quote of his it says well if it's mathematically totally tight he can't be reality and if it's reality\par
 (1:12:57) we can't be mathematically tight about it and he hated learning tensor geometry but he was forced to given that that's the way his theory was going so we can sort of reproduce and understand this thinking it's no longer true that only you know ten people in the world and they're using it right now to do some of these experiments that's right we have for example the prediction of gravitational waves there is an easy gravitational wave we've not yet actually seen them as close as we've\par
 (1:13:37) gotten is we've seen two binary pulsars whose orbits are changing and you can calculate how much energy they would be losing in gravitational waves and you can show that the decay of the orbit matches the theoretical prediction and for that tatom's and some other people got a Nobel Prize but we've not actually detected gravitational waves now we just have coming online something called LIGO laser interferometry gravitational observer which has long legs and of those kilometers long or whatever large\par
 (1:14:15) interferometer whose sole purpose is to detect gravitational waves coming from after physical absence but no one's ever actually major gravitational theory but but teleportation happen to weigh the photo I mean they have done them yes now the teleportation is it sounds to a layman as Oh something was here so he disappeared Wow something it was there it isn't exactly like that it's that you had a photon that has certain quantum properties and and suddenly those corner properties were able to be reproduced\par
 (1:14:53) over here so and since the only way we know about a photon is this quantum property or then you might as well use the word well a teleporter from here to here because whatever was here is now here well how did those properties go from here to there what was that mechanism that got them there actually that's not an area I'm particularly familiar with I mean they're very pristine experiments I mean they do not imply that it's photons today insects tomorrow frogs and explained people following Saturday it's\par
 (1:15:30) a very pristine kind of environment I'm not really up in the details but the warping of space is something that you can see definitely as possible if we get a different G well in fact we yeah I mean if it happens already I mean we do see starlight invented by the Sun as it goes by so natural things like the Sun already warped space and so it's a case of well gee if I had the mass of the Sun in my pocket I could cause like the bend around me too right so we know in principle and we see in practice that it happens the only\par
 (1:16:08) question is well you know what can we do to do it on say laboratory spaceship scale so the mass and the generation is it also remote viewing and all the psychic energy also affects mass as well right I mean there's that phenomena like very tuned in people like Swami's affecting things around them well and in principle I would think that's true and in that particular case since I happen to be a bug about zero-point energy is randomness what degree can be cohered I have as a hypothesis that a very intense\par
 (1:16:49) person or anybody at an intense time a partially coherent fluctuation and that could be measured so maybe as technology advances and we have a lot of easy-to-use zero-point

energy or actuation meters you know you can come up to a sort of magical person say oh I can see that you know you're about 6.3 on the CPU Richter scale here well your regular though you know if you tell that whole story but he had he's a very intense guy with a very intense feel that affects you know we've condensed foods by touching memory probably comes\par

(1:17:25) off of some of that intensity it's interesting in our own particular experiments with Geller in the laboratory we never got under scientific conditions where were acceptable scientific conditions for us proves that he can do psychokinesis although we saw many psychokinetic events around a casual basis and I think that there were some experiments done at Lawrence or laboratory where he was doing something on a piece of metal that was being monitored very specifically and they did see effects that they couldn't\par

(1:18:05) account for so I think some other labs may have gotten some data particular case we didn't but anyway it would be compatible with the idea that that can fluctuation energy or some other form of space-time work actually occurred it seems to be defied there's so many sociological and psychological factors involved he himself thought that you know maybe the world wasn't ready for it to have it really in their face and that's why I couldn't do it I mean gave some other analogies like sexual analogies was\par

(1:18:58) supposed somebody put a camera and use it okay you know you know it involves the whole person and depends on the environment and so in fact there are a lot of reasons to think why I had mine that me well actually someone said that sexual energy is related to some of the key key PK energies the other sort certainly we've heard that you read about it in the literature but what kind of stuff do you be heard about that what what's the evidence what the Association well the association that I have heard from people who claimed psychosomatic\par

(1:19:37) events was that at the time they felt sexual so it's a sort of subjective or maybe more energy running through their whole body in general which stimulates all the organs you know so it's all very exciting anymore I mean we just the second law of thermodynamics and well both in space-time but apparently in quantum energy it doesn't apply or there's no real translation between order to disorder because it goes back and forth that's why it's it's a new area actually in thermodynamics that\par

(1:20:25) people have recognized and the second law which basically the law just does everything kind of runs down and gets more to sort of higher entropy States and server quantum systems under certain conditions there are violations of that at some level and so this whole thing about quantum thermodynamics is a new area that just just the past year they've been a couple of papers published here with zero fetal how can you define an entropy because energy that's right really if there are thermodynamics as we usually know it and\par

(1:21:10) love it it is really a classical concept that applies easily on the classical level it only has to do with statistics of having a bunch of things that are well-defined and you statistically randomly mix them up and like shuffling a big my cards time to get in the quantum level where you got in distinguishability between particles and there they're not there I mean the rules well being a closed system entropy perhaps works but in an open system which seems like we live in that kind of universe that's always being influenced\par

(1:21:41) by this vacuum this quantum fluctuations we haven't open certain Li priggish in got his Nobel Prize for pointing out that and a human being is a good example I mean we are ordered in our environment as compared to just random molecules floating around and but

it's because part of that requirement is that there is open access to energies that we are an open system so that's true from the standpoint of a zero-point energy theorist everything is an open system right and it seems like even perhaps the

(1:22:15) theory that sons are our dark holes and some other universe that are pouring out like have you heard that oh yeah the black holes your white balls yeah these days almost no matter what you would say to a physicist he's got to say that's possibility right the physics is just expanding thank you so much for the work and intelligence and passion you're bringing to the field of physics Center thank you thanks takes that right and they're talking to how put off one of the founders of the remote viewing programs at the CIA use he's

(1:22:56) investigating the access of zero-point energy and quantum fluctuations to power the planet Earth I would think oh boy what's your website doing just give you one time if you care the WWWF tech or earth tech is one word ei R th te CH thanks hit me cover anymore this is new realities on melon Steinfeld thank you for watching and we'll see you next time thanks

[Music] [Music] you

(1:24:03) [Music]

[Recorded Live] Webinar: "Robotics for Well-Being" - SXSW 2020 | Panasonic - YouTube

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Transcript:

(00:00) thank you very much for joining the webinar robotics for well being organized by Panasonic my name is Sandeep Kumar I'm a partner at Kiski Japan investment fund and at Gap which is a global investing consulting and advisory firm I have 35 years in R&D financing M&A and strategic partnerships working at Texas Instruments VC firms and many companies that I started or advised I'm honored to be moderating this Panasonic panel today this session was originally planned for South by Southwest 2020 in Austin Texas

(00:51) but south Y was cancelled due to the coab in nineteen mister Takeshi Ando head of Panasonic augmented lab and his distinguished co-panelists believed that the current situation makes the topic of the planned discussion even more relevant our robotics can contribute to human well-being despite the initial setback the speaker's feel strongly about sharing the panel content with fellow industry leaders as well as the wider public Panasonic Corporation fully endorses this initiative and is actively supporting the virtual panel session so

(01:33) let me introduce the speakers to you quickly and asan is the head of Panasonic robotics lab and Greenberg is founder CEO of entertainment AI and co-founder of fan pulse and has worked at the intersection of entertainment and Technology al put off is a word renewed quantum physicist a Nobel Prize nominee and has spent a lifetime solving some of life in Sciences deepest challenges each of the esteemed speakers will share their thoughts and then we will have a Q&A at the end the attendees can submit their questions

(02:13) in the Q&A section of zoom so with that I would like to invite on those on our first speaker to present Thank You understand hey thank you Sandeep so good morning good afternoon and good evening everywhere you are thank you for tuning in and welcome to how I all feeling today are you happy to be here with that you may be generally and happy at the

moment because of what's happening with Kobe 19 with so many people suffering from this virus I was wondering if we should even go ahead with this seminar but here we are in fact right now \par

(03:07) might even say that I'm happy to be here and to be a part of this discussion but what does it really mean to be happy what actually is happiness it's a very difficult concept to define and it is a fundamental part of what makes us human I've spent a large part time of my career thinking about happiness hi it might reliably be increased before you get excited let me assure you that I'm not here today to say that I have discovered the secret of everlasting happiness but we are trying to help everyone feel just a little bit happier \par

(04:00) so my name is Takeshi Ando but my friend and colleague called me Android so I'm the head of the Panasonic oh glob Oh glob is the Panasonic robotics division where you are look at solutions through the robotics and AI to improve the quality of life we are doing this working together in the community of innovation and end-to-end alliance with various contributors oh it's short for augmentation and we'll get to that just now but before that we needs to talk about automation automation is very great it's the RIBA efficiency and \par

(04:50) productivity and economic barrier to large groups of society across the culture this movie shows the example of automation in agriculture and medical field the automation helped us do things faster and more accurately than ever before I have always been a love addict researcher and I thought I was on the right track and had it all figured out and then something happened that changed everything so this movie shows the a colossal hit sepia celebra palsy patient here he's 14 years old he is not with us anymore but \par

(05:38) I learned so much from him and his family the boy had never been able to move out of his own wheel the only part of his body capable of any movement at the moment at was his left foot which was enough to get his wheelchair equipped with acceleration sensor to move the issue was his left foot was moving in a mix of voluntary and involuntary movement our challenged what to help him move out move out on his own will our solution was to use AI to analyze and categorize the movement and help the tummy pain he actually did want \par

(06:26) to move I remember the day we made it happen I and my team was so happy to see him move however something even more significant happened in that moment Achilles I was full of joy and so were his parents and in fact he did get more and more pleased with his left as his parents showed their joy laughing and grabbing the hand and through the feedback back and forth between the parent and the child they seemed to experience so much happiness the experience taught me the importance of shared social emotion as I said \par

(07:17) earlier I'm so sorry to say Abdullah Faiz no longer with us but I decide to dedicate my life to making people happy and help them share their happiness so the technology oculus on legacy is the rib own and this leads me to the topic of augmentation the tongue out we all need more happiness this rise here show how over the year GDP has grown where life satisfaction and overall happiness have stagnated a prey team is ladders right does show how we live our lives in more comfort and our basic physical needs are met it but our well-being has \par

(08:09) not to be improved so the point is this is not a program unique to Japan as you can see modernity has led to many advances in the material sense but our life experience has not seemed to become richer or more fulfilling compared to how it was at the town of automation I decided we need Lee frame the law of the robot and my personal mission from automation to the augmentation so what its augmentation at the Panasonic augmentation lab we define

augmentation as the end but to enrich human life and increase our sense of
 (08:59) well-being based on Tory understanding human we contribute we're beings by
 developing self expanding technology and assume a sentence design and there are three
 aspects to well-being physical mental and social many company and love around the world
 are focusing on the physical aspect very important but our focus is on the mentor he also
 was an individual on the social way we connect with each others I want to help people live a
 lecher and more fulfilling life and help create a social harmony let me first give you an
 example of my way one\par

(09:48) way we could offer we're beings so here is a prototype we are working working on
 this is a solution that look at look at achieving happiness through the connection with others
 in your family or communal context importantly this is above about how we are bound by
 emotion and how sharing emotion enhance our social experience this prototype is called baby
 Papa Papa fraud came from the paparazzo so but unlike paparazzo this is a very good it's
 such an idea for a smart device that take a photo of your precious\par

(10:33) family moment instead of you so you can be involved in the moment itself so you can
 be present but say it impor aboard into a Lobot that is capable of interacting and
 communicating with family as well as entertaining them a presence that keep that is capable
 of understanding the lifestyle the body of your Pommery and started here to help the family
 share the happiness the Lord can learn the movement of any children around the house this
 reload can feel the reaction of the family when the Lord move for example when they
 sing\par

(11:19) a song together it can also capture the facial expression relaxed and afraid the happy
 turns the comfortable and song and the traced on part the family and the children likes this
 Lobot engage in the little band activity to the silly things and entertaining the family so okay
 we started o clock a year ago and generating more than several ideas several hundred ideas
 and had been working on the twenty prototype also I found but the doing immensely of
 stimulating and exciting I keep designing idea and prototype and\par

(12:03) deploying them for my and our and social well-being I hope by sharing my some of
 them with you today I've stimulated similar feeling in all over you if I have to say sure it's fine
 that we are taking a collective step into the light direction to feel happy and to feel happy
 together thank you q on the Sun for sharing Panasonic's vision and how you're leading that
 effort into the future thank you very much that's really good so moving on to our second
 speaker and and I have an and I have known each other for many years\par

(12:48) and she always gets me dreaming about the future of entertainment that is
 contextualized and personalized a world where our virtual and real self merged with the
 story and please give us a taste of your work and thoughts hello everyone I am Greenberg
 inventor and entrepreneur I work at the intersection of entertainment and technology and I'm
 the founder and CEO of entertainment AI as well as the co-founder of fan pulse in 1998 I
 co-founded the world's first crowd-sourced company Graystone now the largest
 entertainment data company but\par

(13:29) even before that I co-founded ion a futuristic co-creation studio for omnidirectional
 interactive and immersive storytelling we work with David Bowie and many luminaries
 pushing the boundaries of digital content and the author of the human centered storytelling
 series and a contributor to the forthcoming book the humanized internet dignity digital
 identity and democracy I also serve on the extended reality Committee of the I Triple E Global

Initiative on ethics of autonomous and intelligent systems I'm happy to be joining today stories are\par

(14:09) not just a narrative framework they are the interface for how we understand and communicate our humanity I've been on a lifelong quest to create Democratic cinema my goal is to build platforms and business models that can bring humanity together instead of pulling us apart Media is undergoing profound changes from big budget to small from linear to nonlinear and from recorded to real time from scheduled to on-demand an entertainment AI where a smart content company as a media generation company I like to say grows stories don't tell\par

(14:48) then we need to realize that data is not cold data has a point of view and it tells the story at Grace note we did metadata metadata is information about information it enables personalization getting the right piece of content to the right user after I left gracenote I started working on what I call micro metadata which goes beyond information about information to information about who what when where and how it's the contextual data micro metadata and it's increased level of granularity enables what I termed hyper\par

(15:28) personalization hyper personalization enables smart content smart content is content that changes based on who you are our mission that entertainment AI is to merge human and machine creativity to engage a new generation to grow infinite stories when I was in college I wanted to grow films like fractals using Chaos math but it was too early why couldn't I build what I wanted to do back then and why are these approaches viable now because today we have powerful compute including CPUs and GPUs computer vision 3d graphics and flexible\par

(16:10) api's we have abundant richly contextualized data which is increasingly decentralized real-time and dynamic sophisticated algorithms machine learning automation and cryptography are all enabling new media formats and marketplaces but why because humans need new ways of thinking call it social gaming or short form video immersive music or real-time streaming we can no longer tell where the storyteller and the audience begin and end the greatest storytellers will be those who can listen and respond to the audience at\par

(16:50) scale nett storytellers will be each of us together first-person plural we in the 21st century humans have become the story we are the heroes of our own narrative these are the themes I'm exploring in the human centered storytelling series platforms that create connect creators with their audience are potent and ultimately determine what stories are financed and distributed but today anyone can be a creator now we can transform the ecosystem into powerful co-creators this democratization of creativity captures and amplifies the\par

(17:32) voice of the crowd leading to deeply participatory formats collaboration has always represented a give-and-take between individuals but new technology can help us transcend time and space remove inefficiencies reduced budgets and capture new a new Gestalt for storytelling a great example of the audience becoming the artist is happening right now the collaborative phenomenon of people singing together during the current coded nineteen crisis people are leaning out of their windows they're streaming performances from\par

(18:04) their living rooms or they're joining a virtual choir technology is being used to overcome the limitations of social distancing to grow a sense of both individual and community well-being just like our brains are optimized to recognize faces as a critical means of survival we comprehend the world around us with narrative structures we're wired to perceive and convey meaning using stories indeed stories provide structure to our sense

of selves our realization of purpose and our place in the world but is story structure itched in stone\par

(18:44) or can it change to meet the times entertainment a eyes first product is seen play an app that lets users go inside the story by collaboratively performing their favorite characters inside a video or animations avatars and even alongside robots simply enables users to go beyond consumption to participate in co-creation and be rewarded for it all productions are based on a little paper document called a script in the film industry that means roughly 120 pages in the for an advertisement from on the other hand this is perhaps 30 seconds a\par

(19:26) script for example my Mentos turned the script into machine code which virtualized his production and enables a user-generated cinema entertainment AI our media generation system puts a story at the center of the technical architecture using our patented smart script humans are merging with the story just at the time in camera compositing animation and live-action video combined to create real-time films here's a real example of people becoming the story my friend Frank Meehan son Arista Meehan visited comic-con a couple years ago he\par

(20:08) was inspired to create a costume for the Doctor Octopus character from spite of the spider-man franchise Arista wanted his Doc Ock costume to have working robotic arms that could augment his own abilities and overcome some of his personal challenges and here's the result what a great example of science fiction and fantasy informing our imagination so the story can literally embrace us society's technical capabilities are catching up with our imaginations a resource project ended up inspiring real real-world solutions\par

(20:45) robotic solutions for when we might need to have multiple arms now we have better than I and II resolution XR we can create more and more realistic depictions of world around us erasing all lines between reality and illusion digital influencers like Hatsune Miku or Shah do are followed by real humans sometimes they're more believable than the real life human influencers like those from reality television shows whose outsize lives and antics see seating like scripted stories Bob's following humans and humans\par

(21:22) following BOTS humans are leaning so far forward they're falling into the frame will augmented humans whose capabilities are enhanced with real-time data and physical strength and dexterity of machines become superhumans or will they lose the intangible refinements gleaned over tens of thousands of years that make us human with the rides of human 2.\par

(21:48) 0 story the story of the idealized hero or heroine to whom we are meant to aspire is replaced by our own stories where we're at the center where we become the protagonists new rhythms and dramatic arches will emerge where content comes to us and reshapes itself for us I'm pleased to announce a project that we have in the works and Anonymous is the world's first collaborative virtual human and virtual influencer Anonymous's platform is big sister which stands in contrast to the scary methods George Orwell's big brother in his iconic novel\par

(22:25) 1984 the big sister platform stands for a high-tech future with a human heart we could create a completely automated cinema where machines do all the work but we must preserve a place for humans my formula for that is minus one because if we automate everything that only the robots will watch so as we merge with machines don't call it the singularity I call it the multiplicity a creative multiplicity we need new kinds of stories that but humans at the heart of the narrative structure both architectural and\par

(23:04) ideologically we need new thinking that better reflects our deepening scientific and spiritual understandings so that we can transcend the dehumanization of the information age and build a technologically advanced society that firmly places every human at the center of their universe in a distributed harmony that will flourish in the information in the age of co-creation thank you thank you n that was insightful creative so now we move on to our final speaker how L and I met many years ago he is an amazing human genius\par

(23:46) full of energy and brimming with new ideas and projects even at 84 if you see reactivated my interest in quantum physics a field that I did my research graduates work in we started discussing spaceships and quantum communications and UAVs but all that is for another day so how please share some of the scientific frontiers that you're exploring Thank You Sandeep I'm a quantum physicist PhD from Stanford University presently I am president and CEO of earth tech international in Austin Texas it's an\par

(24:29) innovative rnd organization that I founded some 30 years ago I regularly serve foundations corporations and government organizations as an advisor on leading-edge technologies and future technology trends in this role I've worked with Stanford University NASA NSA CIA Lockheed Aerospace Corporation a number of other organizations basically I have a passion for searching for solutions to impossible problems and opportunities where others see difficulties always standing at the intersection of physics technology and\par

(25:07) biology even picked up a Nobel Prize nomination along the way as Sandeep is mentioned let me start my conversation about quantum physics and in kind of an unusual way since I've been a physicist for some decade I've had the advantage of actually seeing science fiction outstripping science sorry science fact outstripping science fiction so I'm gonna choose one particular case let's talk about empty space our ordinary day to day activity we feel that space around us is empty but quantum physicists has found out\par

(25:52) that that's in fact not the case space around us has a seething vacuum fluctuation energy that underlies all of our usual experiences so that when we look around we see particles and we see furniture and we see the sunlight and whatever these are all just ripples on top of a giant ocean of underlying vacuum fluctuation energy that quantum effects tell us is there so does it have some practicality well the truth of the matter is that it does a major one is something called the Casimir effect this has been the proof that\par

(26:39) vacuum fluctuation energy is not just a science fiction kind of idea but but as part of our reality if you go out into outer space even far from galaxies and in empty space and you put a couple of metal plates close together you'll find that when you let go they will slowly come together and collide well what's the force that's doing that well it turns out that the plates partially shield the interior region and so the fluctuating energy that's between the plates isn't as strong as what's outside\par

(27:13) and so the place get pushed together well corn physicists finally realize well maybe maybe this has some implications for say new energy sources or whatever and so many of us have been pursuing two possible out options for that I remember being taken out on an aircraft carrier and talking to the people there and I assumed that what they wanted me there for was to say okay well if you come up with a new energy source you know we would like to replace these engines we have right now in fact this turns out that wasn't the case they\par

(27:51) said you know we're done okay with diesel power with nuclear power but what we're really worried about is that in the decades coming down line we're going to possibly have what they call water wars that is you're going to have upstream countries cutting off the

water supply for downstream countries and you know that that that could start wars so what we'd like to see our new energy sources that might be plentiful and could generate large amounts of energy and be economical in that case and we\par

(28:28) could build water desalinization plants and that would handle this water wars issue so that's a potential that I and my colleagues are thinking about looking at another aspect that quantum theory is brought to our vision is new forms of communication we all know about using standard electromagnetic effects we have radio TV Wi-Fi cell phone and so on but there's some some detriments and using those means of communication for example their shielding problems if you go into a garage for example and you\par

(29:13) can't use your cell phone because of all the shielding or people intercept your conversations or these days of cyber warfare you've got hacking of communications but given the magic of some of the new ideas coming out of quantum theory it turns out that we have another option as it turns out all the electromagnetic potentials that we've been using have underlying them these fields have underlying them another set of shadow fields we might call potentials electrodynamic potentials now these have certain special properties\par

(29:55) for example they can go through shielding shielding it was not a barrier they can transmit over much longer distances for the same amount of power and so basically having this form of communication which can go through barriers it's just so it's a wonderful option but it's only we only have that option because we have access to quantum detectors and turns out quantum detectors or what permit us to have this kind of secure communications and having secure communications means that then you can do bank transfers you\par

(30:36) can be careful about intelligence information going out over the waves and so on so but you need a quantum detector but that's what quantum physics says has given us so here's a whole new area but you know we're not just our gadgets we're also biophysical beings and it turns out that technologies that we're learning to take advantage of using quantum devices and so on opens up a whole new arena of action where we can talk about brain machine interfaces so for example you can have pick up signals\par

(31:19) from someone's brain put them through an amplifier send them to some distance have them decoded and put into somebody else's brain and you've got a form of synthetic telepathy it's it's it's sounds like magic but it's it's very straightforward in terms of picking up signals from the brain with advanced quantum electronics you have the chance for for example people who need prosthetics that they can't operate well now they can do it with thought processes alone so that that's a great\par

(31:58) breakthrough as we look into how the brain operates under all different kinds of conditions the possibility of boosting memory overcoming deficits like mental illness or dementia these are all open as we tap into these new technologies so so we've got a whole new playing field you might say with regard to human links in areas where in fact as in my own laboratory I've got some experiments going on that involved mapping brain waves working with dr.\par

(32:40) Kip green at Wayne State University School of Medicine who's an expert at MRI and Gary Nolan at Stanford University who's a geneticist and with all of our precise and precision instrumentation we've been able to map brain waves of people who have exceptional performance in certain areas for example in art or sports or let's say take a Navy SEAL there's a phenomena and it's shown here on the left where a phenomena called exceptional functioning takes place where in fact you have people who can\par

(33:19) make rapid decisions under stress with insufficient information and somehow their intuition comes to the fore and they make the right decision think Navy SEALs a green beret or whatever the fact that we can pick that up with technology means that we have a chance to for example screen people and be able to tell what attributes that people have and so they can take move out into a direction of increasing their abilities and furthermore the geneticists feel that once we see aspects of the brain that have certain exceptional\par

(34:01) performance criteria it might be possible to genetically boostin so dealing with people with dementia on one end of the scale and high-performance stressful decision-making on the other end of scale this is all opening up as we have this act in fact in pursuing all of these ideas I and some of my colleagues got together we formed a new organization called to the stars Academy of Arts and Science where basically our mission was there are a lot of new ideas coming forward it takes a while for them to get going we should have an\par

(34:39) integrating approach let's take a list of things that generally science ignores like say psychokinesis or UFOs unidentified aerial phenomena or new materials that we don't understand ok so we're going to open up our play feel playing around so to speak to be able to look at those things so even though we've been throwing babies out with the bathwater for a long time and scientific community by not looking at edge topics we've made the we've made the commitment that we are going to look at it mr.\par

(35:16) topic so we're gonna try to transform those edge topic findings into useful technologies and so on and furthermore nonetheless the corporation we've formed is actually a public benefit corporation in which the kind of results we obtain and the kind of progress we make has to be provided to the public and so we want to tell the story of what's developing on all of this through fiction through fact stories you know we've already had some History Channel shows on unidentified aerial phenomena brought\par

(35:55) out to the public so unlike a lot of scientific work that just goes on in labs we want what we see to come out and be available to them so is connect the dots we've got possible new energy sources they can't power micro devices and whatever I mean even just the bigger body motions and walking across the floor can generate energy we have new methods of high-tech communication they can be very secure and give us peace of mind we have the option of understanding manipulating brain waves for benefit of human beings and then entertaining\par

(36:38) education on all these frontiers to create a society that takes advantage or this kind of option thank you for the opportunity to share my thoughts with you as a scientist I hope I've been able to help challenge some of the conventional thinking and discover the potential that we have a whole new generation of new physics and a lot of it is applied to such areas as an aerospace probability of moving out into our solar system and so on aerospace is the ultimate story of human dream and endeavor the challenge gravity\par

(37:12) and the earth and chief new human Heights endeavor of engineering science fiction into reality that's that's what we want to do so some of our effort is focused on beamed energy propulsion new ways of having lasers on the earth powering CubeSat so you don't have to have Rockets warp drive metrics I mean science fiction's that sounds it's on the drawing board so just like Space Odyssey 2001 came out about the same time as the first moon landing and helped the non scientist to visualize beauty of scientific endeavors we hope\par

(37:46) to do the same thing with our approaches and the organizations that we're putting

together and so that's a grand future we see that will provide something of value to the human conversation thank you thank you how always fascinating all the things you were involved with so looks like we have some time for Q&A I would and I think there's a few the attendees who want to submit please submit your questions in the Q&A panel of the zoom window there are a few questions already there so let me start by asking and asan\par (38:34) yeah so under Sun when you talk about well-being and augmenting it are you talking about a one-size-fits-all approach how is how an individual or personalized is happiness and about the cultural context and acceptance of happiness okay thank you so the key of individual happiness is updating I think so as you say happiness is depending on the person our culture so something from the ants talks that please reason I did with me is the conversation around hyper personalization and the human central story tearing so we get up as a company\par

(39:28) and we and Panasonic used to make things that people use inside the home the things that were very static for example the TV or graduated that was our mission and our understanding and we have been very successful at making people's like betters and world better so we've now release that in order to make it even better we need to we need to move away from the traditional linear product that means that one input and one output at our to the one input multi output type of solution so why is this important\par

(40:16) so if you want to enhance people well-being and depending on the personal or a culture so you need to make sure that technology resonated with people that it story relevant to their life so also I thought we could conduct and some experiment where you could ask the person sitting next to you or your family at your home to exchange a phone but because of Kobe 219 we could just do a salt experiment so let's not do that the imagine trying to pick up your neighbor phone and trying to do something with it so you wouldn't be you would not be able\par

(41:04) to do that because of a notice customized to your knees and your lifestyle so happiness very individual I think that products should be updated how are you happiness so that is my answer okay okay question for you and this is coming from one of the attendees Jeff Ferguson he he has a lot of questions but one of them is around deep fix so his interest is how do you let me see if I can find it so what will stop de fake movie knockoffs and movie remakes do you feel it should be opened up and how will editors and makers profit from remakes\par

(42:00) smart contracts or will it just go on dark web and let me just say my viewpoint is that all media is a construct all media is made up by someone that carries this point of view I was talking about in my talk so in that sense all media all content is fake as humans have access to endless amounts of information they need to be able to think for themselves and triangulate between different sources of news and content so that they can get at their own sense of what the truth is but the most important thing is that as\par

(42:40) all the creative tools start moving into the hands of ordinary people they're going to become empowered they'll know how content is made they understand how the sausage gets made as they say and they can be more discriminating about what kind of content they are consuming and and who they believe an entertainment AI the way that we do it is that the smart script atomizes all the elements of a piece of media and and then it doubles as a smart contract now I did I did this work before Satoshi publishes white paper but it functions\par

(43:20) very similarly to a smart contract so if I do it right a smart script is also a smart

contract and anything made with the smart contract becomes smart content and in that sense it's built on a cryptographic rights management hierarchy with the tokenized value exchange getting everyone paid so all the participants can get paid as well as the original IP holder okay so how the next one for you and this is a Jeff is the person ask the question but I think it fits right into your work you were doing at the CIA or for the CIA that's\par
(44:03) now in public domain so Jeff's question was what is extra percept extrasensory perception skill set technology is there any working products that are open to the public that are augmenting our realities in a way that we might not be familiar with for example products that map sensory to the back of someone and let them able to sense and feel things happening out on their visible or non visible planes so I was reading it I kind of thought okay this is very similar some of the work you did at Stanford with and that now came out you know very\par

(44:41) recently into the public domains maybe want to share some thoughts or other ideas well that was an interesting program and of course he got started because there was concern at the massive amount of funding going into such research in the East Bloc countries like the Soviet Union and so on but in terms of actually having technologies to help let's say augment such functioning as ESP and so on basically as we went through the programs we we learned a lot and we found out that there were certain aspects that we could take advantage of\par

(45:26) that in did increase the functioning but it came out from our observations for example usually if you think I'd like to see if someone's psychic so you write some numbers down and say can you see my numbers you know you never get the right answer well those numbers are the kind of language thing that happens the left hemisphere of the brain whereas what people can do with that kind of ESP functioning is to pick up patterns and generalized emotions and that kind of thing which are generally processed by\par

(46:04) the right hemisphere of the brain so one we once we learned in those kinds of learnings that we were able to pick out of seeing what works and what doesn't work we're able to develop quite a list of what you might do to train somebody to be better at this because we found out that basically it's it's a bell curve you've got virtuosos on one end you've got thrown deaf at the other but almost anybody can for example learn to do this so-called remote viewing so although we learned a lot and it was\par

(46:39) affected by knowledge about brain operation and so on I'm not aware of any actual technologies that have been used to enhance it there are technologies that can be used to take advantage of it for example one of the early experiments we did was to have a very sensitive quantum chip we put it inside of electrical shielding inside of magnetic shielding inside of superconducting shielding something is supposed to be completely inaccessible from the outside and individuals who were talented could concentrate on it\par

(47:19) and generate signals and so in that sense we did get some technology applied and observed that you know brought something to the fore that you you might not think it would be possible so that's the only technology thing I can think of hey thank you Doosan you mentioned in your presentation that our lab is all about working with a variety of partners to you what is the value of open innovation and cross-disciplinary interaction okay so that is great question thank you so our works at Panasonic Olav is turning\par

(48:13) gray informed by an approach that empower with bringing in the people from various fields as I said my last question so happiness is fairly diverse it sorry from person to person

and from the culture to the culture so it is difficult for engineer to tackle this problem alone so I think we are amazing engineer of course but they're more we need to think about so if you look at the most successful and the disruptive business model of our era example uber the networks so they all rely on the identifying the real world human needs\par

(49:01) the creating a solution through the technology the important things here is that while they are using some very advanced technology so they're moving from the outside in so from the society and the culture towards the inside the product to inform the technology I think and was taking talking about this you know the way to add create a load map for the technology to do the move port at the Panasonic or global we collaborated with various artists social scientists sync and others the contribution of the ads and social\par

(49:46) science is very important for us and for the technology that we create so for example one on one of our project so we have been writing with the creative agency Cornell as well as yoshikawa fabric Harriet's expert whose work focus on the well-being so there there were also my Keurig material engineer from Panasonic and myself so a lot of change in here so so you can see parade group of the people working together toward one goal it's very important to realize the actual happiness I think trying and trying back into this you know some of\par

(50:35) the work that you've been you talked about today about hyper personalization isn't that a contradiction with some of the earlier work at Gracenote where you were working on personal data protection so on one hand now we're using a lot of data to create personalized content but then how do you merge that with you know privacy so is that more important with your initiative at anonymous how do you handle this conflict we share some ideas where I ended up so high personalization didn't exist when we found a grace note\par

(51:28) at that time a byproduct of our Cinco video consumer playback data and I wouldn't let us launch bass note until we had privacy protections in place and as far as I know 22 years later those systems were still being used I coined the term hyper personalization after I left grace note and formed simply to enable collaborative content creation of scale in our patents I talked about letting users set their own privacy settings based on how they want to participate so users can set their own parameters and change them as conditions\par

(52:05) change so a user can perform inside of an avatar for instance if they want and completely quote or they can decide that they went there for a realistic video to be mapped into the background of a film or inside of an immersive environment but those decisions they get to make and what we're trying to do is build in a transactional engine so that they can set their own price for what they want for participating and and change it if they need to so we really leave it up to the user but I've been a privacy\par

(52:44) advocate since 1994 and these principles need to be incorporated now more than ever so I think you need to have people you know opt-in for value and opt out for privacy if they need it to quote my friend Fred Davis so I have a question for Ando son and also for how there may be all three of you so you know and asan mentioned augmentation had three aspects you know physical mental and emotional so maybe on the Sun you can start with how do you see the approach to augmentation on these three and then he'll if you can comment Ellen and if\par

(53:33) you can comment on understands perspective on augmented the physical mental and emotional and you tell us more how is your approach to augmentation how do you approach this thing yeah traditionally Lobo takes contributes for example mentation from the viewpoint of the physics it's like examples processes hand or some kind of of course I graph is also

about the solution of the documentation from the viewpoint of his car so from now so the importance of the well being is from the viewpoint of the emotional social it\par
 (54:15) will be increase I think so therefore the technology is more used at that kind of field so there will be focus on that DeBaKey on the social or mental activity so that in my think what do you think he'll ha I know you talked about you know brain machine interface and various projects you've been working on so how do you see some of these working out maybe you know the experiment you're doing how does it apply to autism and PTSD and some of the other aspects as we have our new technologies to evaluate\par
 (55:08) and measure aspects of mental functioning and you know other kinds of functioning of our experiences so on we're learning more and more about pretty edgy kinds of things technology is beginning to move into areas where you can even monitor mendacious even monitor what people experience as spiritual occurrences in their lives and so on and so I think once we recognize that finally our technologies have gotten to the point that they can sample and be sensitive to more esoteric aspects of human interaction I think\par
 (56:02) it's only a matter of time before we will for example this remote viewing phenomena you know we'll be able to measure its effects on the human being and in social interactions and as we learn more and more about that kind of sort of interactivity the it's it's it's a new door opening to what humans really are and so a new vision of human beings being much greater than we usually give them credit for all by itself is going to have a major opening I think or everything from the personal to the\par
 (56:42) mental to the spiritual aspects of how they approach their lives thank you so one last question around you know we're coming to the end of the time so wanted to pose one last question - and as well as and asan on how do you see you know the covert 19 situation how do you think technology can support people in this environment on the Sun and how do you see you know AI help people in their isolation this is for ants so maybe under Sun you can start and then yeah okay so think of a very important question so coach 2:19 has a\par
 (57:36) huge impact of our lives so as I I talk in my in my talk so we're beings is consist of the three part which commenter social the coronavirus impact on the maybe on the field current health which has been stable to some extent before the coordinating and inventory the effect of the mental and the social aspects so just as many people including me work at home now we it will be more standard for us to spend more time and work from the whole and at the price through the cyberspace and than ever before so perhaps due to the Lovatics technology\par
 (58:27) and AI and 5 g and so on the technologies that enable number bar engage communication with the 5 cents so people at the physical physical - distance is developing laboratory so how about the communication through the cyberspace create many many new relationship in other words so there is many existence of so it is necessary to smooth the communicate while flexible changing the existence of I according to the time and case so in addition to the traditional communication with added so you may need a new technology to help help you\par
 (59:12) communicate with many of existence over you so that is the new technology I said thank you so and what what do you think you know AI and isolation not that I would have wished for the pandemic but we have a unique opportunity right now in the midst of this crisis to rethink what our priorities are in the digital age I think we need to protect humanity by by reintroducing human scale into the technology landscape and I think we can do that by you

know by through hyper personalization frankly so films were a mass-market medium one size had to fit\par

(1:00:06) most everybody but now you can actually tailor things so that they can have a really individual response and and then I think is closer to the human scale so we need to have a more equitable and harmonious implementations directed to long term well-being what I can just in this new a new paradigm because everything has shifted okay so thank you all for your insights thank you for the attendees for joining I think we ran over a few minutes but I hope you found the conversations thought-provoking and it's significant that we discuss\par

(1:00:48) today's team in the current circumstances I mean everyone knows a simple fact the future depends on what you do today so we sincerely appreciate your participation in this session and and their questions that didn't get answered I think we will address them offline and hopefully this panel will get rebroadcast so please feel free to let us know thank you very much\par

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REMOTE VIEWING- The Philip K.Dick Film Festival - YouTube\par

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Transcript:\par

(00:01) - wobb yeah really an amazing group of distinguished scientists sliders dilation so right next to a Mary Ann we have a lot of shocks but hey dr. Schaack while I make it very clear shot dr. Charcot latest um reported friends he is a fast tall among those investigators who of the four channa of the everything that ranges from remote viewing to accessory perception to aerial phenomenon UFOs but at the same time doctor valet also led a ball which was it was where the early pioneers in the creation of the author so uh he is here with us actually uh\par

(01:09) very rarely makes any kind of appearances he and I'm really happy presence in New York ah for those who saw our Close Encounters of the 3rd time rectifier is Gilbert chemist a fellow provider that's our to fall well actually uh whose work was basically the dr. Phil a whistle inspiration so while you say that create respect Thanks so looking here on so Morgan I would have someone else come in moderate town - I said no I got it because I have a real special interest in molecule study or research so I wanna definitely share\par

(02:14) this information so next - uh on Mary Ann's right is a doctor how good of now doctor how far up he was actually along with Russ dr. Russell Targ who actually the Creator correct of the first remote viewing group but in addition to that I think what makes it most of wheeler usual is the heat is a nuclear engineer correct and also have explored different areas in energy propulsion to your point energy anti-gravity area that a lot of scientists just won't don't have the courage to explore say no this is not\par

(02:59) possible this is not doable but yes he's there at the forefront of that am i right I have no another doctor how dr. puno saw right is excited about this it's not Collins Munir actually Atomics with this I believe is the first remote viewer training I ain't know so onward varies military correct first member of the army Stargate program personally trading coordinated motion and the only member of mr.\par

(03:50) Swann trained through stage this time in fact I know if it's on setting might be better Thomas just better and themselves literally exploring later on i repel away hold your wrote

Tom's results we're not just impressive so then you consider spectacular Tom but also sometimes universities work shallow so it's a little different viewing would like to do it session exactly exactly and on and then to dr.\par

(04:36) Blais Lance's uh blend on the carry she is an assistant professor in head of Special Collections at the University of West Georgia where her work includes administrative papers rare collection of psychic writer and artist Ingo Swann 2009 and thousand twelve Flynn serve as a Pacific Northwest curator at the University of Washington libraries let's give them up in half now if the very is death of a no we are covering a lot of prints but before we do that I just want to have each panel introduce himself basically the audience\par

(05:27) question which is good what what is written by Ingo Swann comes to reading secondhand sources and yet all of you need a minute can you each tell us how did you get to know him what made stand out other Gidget it clear void subjects starting with dr. rivela I have some explaining to do because I'm not a psychic I'm not starving would you're not even if not a psychologist however have been interested in our psychology long time there since my early years in price and then in the United States and I'm\par

(06:18) computer scientists or more exactly an information so it is and I wonder is are I actually shortly before after food and starting this project we had been colonized in member in members of the group in Palo Alto in California and that was a drama psychology research group which was a routier organization that had to be able to look at this and I included some light into space it was a new project at NASA I call the applet which turned out to be in prototypes on the Internet is arriving machine of the truth they don't need to tell you how\par

(07:03) many computers to be on the Internet so I had premonition being part of that experiment essentially and I could around the other native people who actually built the infrastructure which might be still there underneath what you do under where they were about 200 people spread across a number of universities and they saw Alex one of the one of the major centers we had to network information centre English which which I quoted some of the some of the developments then to put up what is project Messiah and the ingham came to\par

(07:47) to a site improvement project so I'm very it's really grateful to help bringing me informally to the project I was never he never been me I was around these people the reason I was there was the Engel others had a deep interest in UFOs and that was something that they couldn't reveal to their sponsors who were military intelligence agencies they are sponsoring or going to sponsor so that's how I became so the innocent bystander then I met Engel angle and that which was unhappy now how can you be unhappy\par

(08:31) when your dream job like this in California they translate really number of people he wasn't happy because he likes this city in Ex New York all his friends are here the weather changes in New York in California and slice of his brood it's kind of boring so heaven and what he wanted to do really was frustrated with wanting to do more and this was the project to put up started was really an exception it was the first time the physicists we're going to research her Palace of Culture and furthermore it was\par

(09:13) not going to look at many lines and Hill stands of gods that was going to look at technology so sorry interviewing selflessness and I were working on different types of machines different types of experiments trying to understand the dead culture it so we studied a big lunch together and becoming friends it was very warm by the way this is not usual value for communities for all of us because there was a lot of emotion attached to

working with evil women still a lot of the ocean thinking in all of us I asked him what
 (09:59) is it exactly that you do and he said I can transfer my consciousness anywhere in space and time and bring information back and I told him look I need to give you a quick briefing on how computer networks social and what we're currently doing because we that's the same thing we go get information across space of time and if you over Toulouse Google to the areas where know that in 1970 and 71 people realized the power it was in that in the act and I told him in information science with different ways of

(10:39) addressing information it could be I don't want to take much time but it could be the interim you have the exact address of the information in you go get it or you only have an X we should we calculate it will give you the address where you have to go to get the address of webbing from wishes it's going in your item to see the menu make a difference every single virtual address when the information is not even in the computer when you use Google the information is not in your computer it will go into what's going on with a

(11:11) cloud and somehow statistically go through a hashing code to get to something information and that was really the initial thrust from angle develop a very coordinated reviewing product so that was the quick introduction to working with ego and then we would go up and a cup of coffee and talk about relations why I met Ingo I started a diseases during my latest research Stanford and it turns out that I did a textbook on graduate level lasers and on electronics and in that era I had a problem that many people had

(12:10) within physicists that is well we're talking about atoms per molecule slaves and all that kind of stuff but what about consciousness I mean this is all inanimate physics this is all inanimate physics what about feminism's is it still molecules and atoms on the way down or are there new fields or like that so I have an identity a pure physics experiment of the quantum biology experiment and I wrote it up as a proposal and I passed it around and turned out the ink Oh got to see a copy of my proposal and so he wrote me a

(12:55) letter and he said well cringe to the borderline between animate inanimate physics you should be doing the kind of experiment you want to do with algae courses you should be dealing with somebody like me at least I can tell you what's happening in ordinarily I would have just throw that in garbage except that he included with this letter a description of some experiments that he did city college in New York where from a distance he would raise and lower the temperature of some temperature measuring devices so the physicists that

(13:29) was interesting so I decided to invite him out to SSRI he's going to mark I talked to my city's colleagues they don't like that at all frozen charlie you better really have something good well or not it did have something good we had a very sensitive magnetic field device but it was inside of electrical shielding is inside of acoustically isolating is inside of magnetic should subside a superconducting shielding this is something that maybe it built that nothing could get inside of clone you learn when you show it up I said oh

(14:05) we're going to do this experiment that's I'm like looking inside of a box or something and so I took into this place inheritance they mounted below the floor of the physics building he said why I've been looking there and since you and I said oh we can't take it part at all then I don't mean that way so anyway over the next couple of hours he looked looked into the device physical device output bananas one of us piqu'e9 experiments money could ever see but beyond that he even wrote up inside of what was inside

(14:43) the device which has never been published what we would not call her mom you know so that was really staggering so I wrote it up and I passed it around and pretty soon CIA came

knocking I couldn't care less about the PK I did have been actually see through shielded then they got the big total size book on my desk this is what the Russians been doing it for ten years millions of dollars for DSP nobody in America leaves there is such thing and so but you did this experiment look in your background used to be they'd intelligence officer\par (15:26) and I'm a BA you're this arriving a lot of black projects here you might looking into this so it was just a lark I said sure I'll do this I was just a little side project maybe so obviously it taking on this project I got to know them really well of course you start out with the things in my Vegas doing putting eggs and boxes can be described then what sophisticated things later on in the laboratory can you tell if it's not an offer when I in one day and I'm really forward I'm going back to New York\par

(16:06) this is trivializing my ability I know it's in the boss - look I know what do you want to do should someone else since this will be very much described where they are anyways going to quit so I sent some money out come and eat it describe for the person when we did old series of experiments so I finally had to report back to the CIA the turns out they were not happy with this they were hoping we'd say oh this is all nonsense that doesn't work you don't worry about progressions not get anywhere so here it would turn\par

(16:47) out this good results so they decide to test this by hitting coordinates the socket suggested what turned out to be super good now in a safe facility and we got data out of that long 14 apprehends descended on its own forgiving as I am excellent away that process over the neighbors grew and turned out we ended up trading on the intelligence officers to do it which commandeer will speak to in any way as far as think of the person goes he's really different to what you might think typical psychics occur because my cakes\par

(17:31) for Clarence would be a TV show the other ordinarily people who might be in the psychism reading tarot cards or whatever they'll try to take credit for anything even if it didn't quite match sad it was just the opposite he was absolutely pristine science time if there were even a possibility of a loophole so experiment he didn't want to see it counted because he knew if there's a loophole so I'm gonna find it and this isn't working again so anyway over the time he was absolutely in martinet in doing good work and that was\par

(18:20) finally recognized all throughout our government intelligence agencies and so on to the point where then he began training of the people and the truth the matter is absolute most inspiring person I think I've ever worked with is focused in fact is warm and gentle its extent and absolutely going to Steve and his thought patterns and so the just really unusually Renaissance man unless you saw through the documentary in one artist and a writer he for me was a teacher and mentor he was a visionary he was an intergalactic psychic time\par (19:13) traveler and over the two and a half years of my working back he maintained a good friend the ego I do like how said yet very freely of himself an expected little in return from others he could be cantankerous and difficult to get along with at times but he never wasn't because in documentary we got along very well after he passed my wife Fay and I spent two days helping to sort his books from his library and we were surprised how many people that sent him books and manuscripts asking him to read them and\par

(19:54) respond to them he would keep the letter the team with the book and his response and tuck them in the book so we kept the time to read a few of those it was amazing he would read their book he would take a great deal of time to write a detailed response of what he thought of their book he usually focused on the positive aspects of it and he even apologized to somebody once for taking so long to respond what he was apologizing for was the fact that

the 9/11 attacks here in New York City had impacted his ability to be more timely\par
 (20:33) his respondent personally though it was a different generation he was 19 years older than me he was like my older brother sometimes sometimes like a father or grandfather giving me sage advice he never withheld that advice mostly he was my friend and when we were here in his studio some of the couches you see over the High Line hotel used to be you go studio sometimes we would sit on one of those couches we could sit there for more than an hour never say a word to one another I guess friends don't need words\par
 (21:11) but as Ingo wrote in one of his books called purple fables we were in our temple of sanity pretending to be sane that's the ego I did it go in late nineties around that period of time I actually been involved with the one of the really critical SciTech who fought remote viewing public I was living in LA with my husband Robert and we're going Bob with that group of people so I hate quite a background on remote viewing before I met in go and essentially have gone for like a fancy conferences and parapsychology conferences while\par
 (22:02) virtually speaking of like how and other people in the field in go when I first met him actually came to our house for dinner and I remember you said something very odd to me because I gone through a very stressful period he looked at me and he said your aura shattered and I don't really quite know how to take that and because anything like that before but it was a very profound comment which I think you know I've always carried with me and my relationship with him so over the year my husband Rob Knight we\par
 (22:41) developed a real friendship with him I worked as a professional photographer now for 35 years and more recently in film maker and I think if we conserve my emphasis in visual arts and this was something I really related to with Ingo and his work as an artist and a painter and I in 2000 I actually and reverb to myself from enter the Thompsons and our life the various stages of the protocols and at the moment bookings are so anyway that allowed me to get a much clearer overview of remote viewing um I can say you know it definitely works as\par
 (23:31) a platform it was quite extraordinary it is definitely a bridge way to our intuitive abilities and in some senses helped me was the making of this film because I think dieters the signal life as well and actually comes going to walk us through a remote viewing session has helped me and correlating and following the trends of the short film that I made so it's kind of helped me in it well I didn't know he'd go personally his papers and I first met NGOs family in 2013 after he had passed its papers in\par
 (24:22) his book collection which I cured tell a lot about ego and actually attest to everything everyone has said up here in full and most noticeably about Ingo is on as far as his personal characteristics and what sets him apart is his meticulousness and you see that in his notes and his writings and in drawing and he was so evidently such had such extraordinary intellectual abilities and artistic abilities that he did he very much recommend sort of kids to this a very creative possibilities limitless with a meticulousness and sort of an\par
 (25:20) engineering and scientific approach to things which is unusual in people and that Ingo did it with an extraordinary level of mastery so that's my brief comical group how many of you actually listen I didn't raise my hand is that when the CIA showed up it said we have one rule we learned in the days of LSD that the people responsible for investigation should never get involved no you might be hologram you wouldn't even cheat so after the program so I mean there is like an explicit\par
 (26:25) description of remote viewing but from an insider's perspective maybe that's what

maybe not indict us through it that would be a good idea to really pack in size view well I go broke remote doing down in seven stages and each stage built one on the other I'm not going to try and teach you to remember you here but what I will do and I have to write this down is walk you through the different stages and let you form in your own mind what it's like to remote view so that the stage one is basically a result of it's the primary\par

(27:14) aspect of this site and after that a normal five senses sight sound hearing taste those come start coming in stage three is when you start getting some sense of what the site is like but it's sort of general Stage four is when those general things start to become things and start to becoming more detail so what I'm going to do is I'm going to walk you through one now many people think that when you're opening enclosure I think about well some some do there's a form of remote viewing that people do\par

(27:56) that but for most of us we Remote View with our eyes open so I'm going to ask you to keep your eyes open and as I go through this start imagining in your mind much the way you see a picture in your mind when you're reading a very good book that's what you're going to see so you are now sitting at the other end of the table from me you're the remote viewer and I'm your monitor and I'm going to use a coordinate which is the way I was instructed so your target is one two three north four five six\par

(28:31) West and from that you start getting a sense of land and water don't try and turn that into anything else all you know is the general Gestalt of this site is land and water after that the stage twos from our normal five senses start coming in education and concurring this in your mind you hear sounds sea sounds you feel a breeze on your skin you feel the warmth of Sun when your skin you can saltwater smells the colors blue and white or present you get the feel of what sand in your hands and under your feet so you get to that you're starting\par

(29:20) to get a sense of what this might be and then all of a sudden you get a warm and relaxing feeling that what we call an aesthetic impact that how the site is starting to affect and then you go to stage three from there and it might be long low and small not very detailed but then stage four starts rolling in and long starts turning into three hundred and twenty meters and you see sand and blue water palm trees white sea and at that point you should be sitting in your mind right now an island and what you're seeing in\par

(30:03) your mind's is basically whatever hope viewer sees when they're viewing they're not seeing it right in front of themselves it's subliminal it's in the mind now with practice you start getting more and more at the site and less and less in the remote viewing room but at the end you summarize everything so what we have is an island the waters blue the sand is white it's they on there because you can feel the Sun on your skin it's breezy there the water is blue the land is white and that is what it's like to\par

(30:41) do a remote viewing session now along with it would be you would be sketching out what the site looks like but can you show hands how many of you were seeing an island in your mind by the time we went through that era that a good number little practice in jellal so what notes of project was starting tingle wanted to start training some peoples and cities to refine the methodology consciousness squad and I was one of beginning so at that point your baby so I had like how high and so there was a super world the third sprawl\par

(31:39) nobody knew about it was essentially exact the table and chair will then share the other end and someone paper and the net was experiment and so we went through training and strain in those different phases I met some I learn as you said go was very much a scientist was very formal in their training and insisted on the single scene work and I got it

once more some sessions were positive and son I didn't get I remember one one time and he was strangely as I said when we set down from the first session of the morning\par
 (32:31) and in go open folder gave me no children entity immediately I had vertical I had to gravity scone there was wind around me I was disoriented and talking because this was the case where I just gone to the last state without going through the intermediate steps that he in CCR and I had no control and he said where are you and I said I'm on top of a mountain precipices all the way around me and I'm scared and I had written growth spurt older and I said okay we're buzzer said you're on top of a peak in the Andes I said\par
 (33:27) well you know this was pretty good I mean what I don't want you to lose what you're just right I don't want to do anything else just today I mean on vacation and that was it was my experience with we always wanted to end on a high and that's why you had reached a new breakthrough and just like in sports training where when you throw a really fast pitch or you do a particularly good high jump you should end for the day so that your mind and body can incorporate that new understanding and so that was English way of training\par
 (34:14) Kerry I asked you how dr. Hugh Russell Park love with the idea of creating program what came first checking on the air each one said Ingo came in and we saw you already had it a theoretical framework for remote viewing how it's a little backstory that it's really pretty much as I described in a little bit better detail before and that is deep I had no idea of starting with a person ecology from him as it should appear psychology but it was only by this happenstance of the thing where he volunteered to do an experiment we want\par
 (35:03) to see it did this make the time in her thing and then CIA man and the doorstep so it just sort of grew from there and in my mind it was going to be a lark but it was going to turn into 20 million dollar 20 year program and so on but now that I I would like to division about pingos as I got to know it's on you know I would ask him what are you doing sweating and you can do it if the talent obviously quite a skill but you know what really lies behind this and he said you know what really lies behind it is\par
 (35:46) that for whatever reason I've realized that human beings are much more and we usually think of that we take for granted and so I realize it by pursuing this to degree that other people can get an idea what I'm doing the real thing is there were how much more there is to human being and we usually take for granted and this actually came came - it's a real head we were presenting a whole lot of results to professional I would seem it and the Governance Committee came up and said well I know why we're doing this so important for\par
 (36:33) national security we're getting all these great results on Russian sides and all that the truth of matter is the most important thing is what it tells us about the human potential so he really got it an act that was English driving goal so even skeptics coming out of it whatever didn't face with it he just knew this whatever city her addresses is to it they tend to offer an explanation for the source of remote viewing of these powers or abilities or skills or you could hone the reserve framework a something that is the average person\par
 (37:26) like you will understand was an experiment um you know didn't try and explain it how it's happening that for the physicist after put on we wanted to make sure that it worked he wanted to show that it work that we had these capabilities and it's described as a paranormal function sometimes the paranormal simply means it's beyond scientific explanation in 1930 represent Randolph trip or is it Albert Einstein the table I perceive is perceptible by the same kind of consciousness which are it that sort of takes it out of the\par

(38:16) paranormal if I can touch the table I have a sense of touch if I see it I have eyes if that table is on a planet in a distant universe and I can still perceive it something in my consciousness allows me to do that so I think INGOs thought is that not a paranormal thing it's something that we all possess and he didn't want to explain it he just wanted to do it of course the scientists we want to explain it so we thought well maybe brain waves that wonder if any frequency is transmitting whatever whatever so of\par

(38:55) course we put people into submarines and take them to the bottom of the ocean through hope you some place hundreds of miles away and he didn't even better psychically quiet there the truth matter is although we never found out exactly how it worked these days science fact is overcoming science fiction and we now understand from quantum there is an Augmented there's much more going on at the quantum level we now have phenomena we call quantum entanglements in which it's absolutely clear to physicists any equations on a\par

(39:37) piece of paper that we're all connected that there are connections over time and space and parently underlie everything that occurs so as we start to try to decide now how it all works at least we know that similar things are already working in quantum theory and various areas right and explain it I mean I think you know he authored a dozen plus books in his book like reality boxes you know explicitly lays out the connections about you know the consciousness and tapping into the consciousness and as reality boxes that society or person\par

(40:32) what are the physiological or other abilities that are required to do this sort of thing up remote viewing and there's a lot of people who are working on trying to explain that physiologically as well and then there's sort of that application of remote viewing and it's been very interesting for me to learn about you know sort of that military application of remote viewing but there's dozens of applications for it one of which is really to explore that human stenchy ality which is one of the most inspiring things about you know\par

(41:07) I mean personally deeply transformative in my life but the news there's all these sort of there's business applications you know criminal justice application so it's been very interesting to look at it from a broad perspective insane ingo sort of within that dimensional sphere of practice so it wasn't another belly CT letter was actually reading forbidden science a second or two long time ago pre-meeting in its really for those who haven't read it is a great work if the bricks on the inside view of what\par

(42:01) it was that period was pretty amazing community so what you really want ball striking about the work research that you were doing is that it's very new kind of juggling two worlds room on one end you need a you're working on computer works and then the next sentence here you are talking about exploring different um well for Tiana I would like to refer to different areas of human potential so I over the years have you thought maybe there's a way they complement each other or was their way were you doing\par

(42:40) this just to balance your own world or was this simply there to simultaneous interests you had it would have been impossible except in Silicon Valley absolutely time and within any possible without dr. put out the environment was created back I got the conversation once doctor Federico fetch in Thailand physicists in Silicon Valley who was a founder at one company after the other he was the inventor of integrated circuit and machinery Pittman who made one time when he was outside his body and we should know admits that at the\par

(43:36) time is not make here agree and I have a conversation within say you know how

fashion we going spending time recycling some you know so many of the things to do so many people who are against you know let's not forget you know how muscle we're in an environment that was really you know intellectually opposed to this this type of work there scientists are supposed to work complete introduction detectives and theoretical said we're raising the drive we stop asking questions we might as well sell Silicon Valley to do Japanese because\par

(44:20) that's what we do and there is no difference between working on something like the internet which was an extraordinary jump into the future technology going by the way against what industry will use to do to create something that was really inspired by D and you're linking all together and then this project which is essentially trying to look for what is it about unit consciousness the enables us to delay in hiding the two were to me and I still do I mean I've had one five inches on funds investing in silence and what you fly-in\par

(45:02) in the sounders of these problem to succeed okay I mean that people are looking for something more than just being successful in making money 9:53 I hope that in Silicon Valley and so not know many today that it was 20 years ago and I hope that we don't lose an inspiration we turn into that book I mean I wanted to reference this to you when you first met you what we were in projects like the functions to licking up is UN stimulus believe so just give us a little bit of a back well you can probably tell if it's just standard\par

(46:09) things I get bored very fast I'm always out there well turned down interested in UFOs first registration intelligent someone so when I been shocked I already had read a number of his books passport to my going in and so on and so I felt honored actually grossly privilege to get to eat shark and I also knew it obviously from his interests in the books he'd written is very open minded so it's just natural to let him know about the remote viewing project and he immediately ideas about how to help and\par

(46:54) he's coordinates as described already to not be a boon to moving it forward so right in the beginning I just thought I was meeting when I con that I had already admired we actually had met before global context I was FSR and ii was a member of the parapsychology research group that met from time to time so my first reaction when I was finally physicists are going to get into this the memory to clean this mess it was strictly mass technology up to this was you know it was a series of well-meaning approaches to face but they\par

(47:50) they had never been coached in it in for granted experimental staring it away or rarely and they were experiments done that they were never taken really known extent in terms of what Leslie Smith on structuring the world who structurally waivers but they'll stay with it and how they mingle separated from activity in the field you know in in the face of a lot of you know we tend to gloss over now it wasn't easy okay it wasn't easy for something went to all kinds of different phases we have to make great\par

(48:34) sacrifices all of them to continue the project and to restart it somebody wanted to kill it including people in Washington wanted to kill it from ideological reasons religious reasons and other other reasons I think only how notes about what I'm going to describe now after when the project was founding it had very little clinic admission I think was one of the component provided some sorrowful at that point that was working in in one of the ARPANET groups the group that developed the mouse and a lot of dungeons until you come to\par

(49:20) Douglas in your mouth and the head of the Asian medicine I'm very apt cops came into my office closed then he said Shack we I need to talk to you not something and you've done you've gone through out some of your books and some of the stuff that ufos you've managed

to do that without losing your integrity organs in your education which is one europe at a salon we learn we need to learn to do them because as you know they're it's a project starting on the psychic research and let me do\par

(50:05) something on your part to escape you know the right side of the scale include large square then 100 million dollars that was the total revenue to SI of ongoing research through our companies zero out the General Electric and Bank of America and on none and from left he drew the little tiny little square and he says any world 1 million dollars and he says this is the most we can ever expect again from research on certain stuff and there are a lot of people around here including people the ball and I saw which is a very powerful role\par

(50:49) who you know I would read about should we endanger a hundred million dollars with the prospects of maybe getting me here for two years then I said you know one reason we're here is that we get choices with technology people the reason we work for Bank of America in Xerox is that they came to us to fix problems their own scientists couldn't fix we're and I'm not going to do that I just keep doing the classical face that everybody else does in the scientific community / - patience is at the frontier they\par

(51:27) stay well right living did I voted me know we're just for his eyes only that's a and the don't circumstances project like this win definitions Society community is again from the paranormal paranormal is your attention some people who answer the work of the devil and the people say we're going back to the Dark Ages we'll be leaving in Google stuff you know and necessary science but the fact so the fact that this would be classified gives us and is going to give those guys a runway under wish no\par

(52:13) brainer handle wishing them will be shielded from that kind of controversy and they can get to some results and the second part of medieval said those who essentially publish to the extender they have to do with perception consciousness it will let them talk about Russian submarines but let's talk about what we are learning an awkward way about the statistical methodology which was develop less I had never been developed be sure without the channel of perception about the aspects of consciousness it were being discovered\par

(52:47) and I said let's not completely classified project and think that's not but as I should be doing let's use the shield of classification with you know CIA of others to protect the scientists I'm going to take a class on this project know enough so that we can publish something when your interest to everybody Mingo incinerator philip k dick I was not ready located and last week that was a surprise but then again filled you take me all the cool people so in a way it was nice appearance so can you tell\par

(53:37) me how they met over like a happen so ago we think about how actually there were a few writers and connectors for the science fiction area that was come to in the seventies and one of those people was pear deck and also gene roddenberry and I think in the web she went to some of the early Star Trek ships actually as well but I think you can see a lot of aspects or Phillip q-tips work and you bunbury's you know in both explorations that intersected that you'd be program some of the artists artists actual\par

(54:26) legacy in those works in Georgia so tell us why Georgia and what are some of the materials testing are the English books and papers are Georgia doesn't it interesting lead us all today so we're at a University of West Georgia which is in the Atlanta metropolitan area we also have large US congressional collections including the papers of Newt Gingrich and to say that there are definite connections between what's going on in Washington DC in military applications or other intelligence aspects of psychics and Washington C is profound\par

(55:14) sort of unexplored a little bit might I suggest that after decades of managing congressional collections of very through monitors so I got a call at and that the University of Virginia has been contacted by Ingo Swann family and that they had referred the family down we were sued with Georgia and it was because of our large parapsychology collections and we had a son colic program that was really at that guard starting in really good sixties and seventies really focused on a humanistic psychology and there were sort of the\par

(56:01) the chickens of Abraham Maslow and in their teaching they were looking at you know the whole human and all the potentialities with human experience and not judging like human behavior but looking at human very holistically and so the curriculum at our psychology department included a course in which you had a slaughter a chicken to experience life and death and reflecting on that and sort of they so there ended up drawing a lot of faculty who are really interested in exploring you know human consciousness and so on and\par

(56:38) eventually came to work at our university with a felony little role and a lot of bill roles were ended up focusing on school crisis and so the faculty at my university ended up having a lot of connections with people who are practitioners of parapsychologist and ended up with some material through book collections from the psychical Research Foundation called the cookbooks collection Wayne hooks we David Hook resort so we had until roles papers themselves which are heavily used as well and so we had these print\par

(57:15) collections on topics of parapsychology or you know as of carrots topics and so so in those papers and book collection were really a very brilliant fit into our collections we have an academic focus at our university in parapsychology in our technology our solution is highly unusual we're the only one in it the United States and it's really very very important that we have these parapsychology research collections which are open to the public and that we deliberately collect in this area because most universities jump\par

(58:06) and you know you'll find repositories like Harvard who had you know they might have some witchcraft or they might have you know a look here or there that deals with palmistry or phrenology and we collected comprehensively on parapsychology topics and parapsychology collections in it their real import of that is that as doctors I like sort of really intimated and emphasized that the intellectual Academy wants to sort of keep their distance from what is unknown and what might be uncomfortable for a lot of people and here we are in the\par

(58:53) midst of one of the most politically conservative country counties and areas regions the whole United States by the way and Sam it is you go out and talk about our fears dr. Ola entire lot in common especially in that information science framework because today to do a Google search the results that you're getting back are absolutely framed to you all those algorithms are built to your geographic locations everything that they know as your profile searching habits and based on what groups of people like you might\par

(59:44) believe or assume and there's tremendous we're coming out of UCLA high school I'm studying this and what's important is to document and collect everything the threats of everything because if I didn't collect in parapsychology we would be missing a huge slice a significant slice of the huge experience that no I remember what I was yeah one of my favorites is I was working those studying with Gallagher psychology and I wrote a paper of higher psychology based upon the work of dr. Ryan I guess see -\par

(1:00:42) so I want to challenge the professor to listen this look at the data this is was the only way I'm going to give you an A so you get an A the final exam so I said okay I'll do it so I

they're getting an A in the final examining the course but it wasn't sure there is like an inherent bias against no matter how much information out there contrary but and that's not I just want to add two points regarding how dr.\par

(1:01:10) fell a number one week actually you know I was just looking over your we've got your master's in astrophysics that's who actually we've been doing our silicate a festival to align we are not sweaty in this area Neal University and it lead so it's a serious synchronistic now fella kate talked about the Bangalter when he headed to 374 experience is sort of a so you wanna go to very significant work paranormal career to asana coal valence which is fast active living information or intelligent system and in some ways you\par

(1:01:49) refer to in need for new physics for the physics of information in order to explain a lot of the anomalous phenomena that's going on that people experiencing every day so in nineteen when I mean that work in forbidden science physics information is 1975 imagine it so it's four years later we any closer community advancements and we are still stuck in the offices I'm very happy you mentioned less because to me that's the most important book by it's a book I try to read once a year night my crappy even\par

(1:02:41) thought they were back nicely prevented having I rotated and I keep finding new things I think he was it's absolutely pathetic of the tune of minutiae of science and of the problem that were being with the Anita you said human beings have greater immediately than we think we do it was not the great message of Engel and I think they must have talked about that quick when there is anything I can say it would city Wow in terms of the impact on kinetic and he was trying all his life to find that to connect to them there is a wooden things\par

(1:03:28) you learn in physics that they mentioned to you in Tassie that they never tell you why okay said that is that energy and information on two sides of the same coin but let they go on to teach you the physics of marriage you know as photons of visuals radiation air momentum and all that they never say anything about the other so few years ago I was invited to give a TED talk of future six the next 60 years of physics which you can find on youtube so if you put my name the X muscles you're going to find that some agent in\par

(1:04:11) years and I don't give me 15 minutes you know I care I came to justice too so they said well in generating going to talk about the future energy is I'm not going I don't consider myself really physicist but I can talk about physics or information and to really should be going in power and in the physics of information you you don't have station okay space and time are emergent properties then quantum physicists are getting to that now but they are not not yet teaching it right but it you know\par

(1:04:54) getting to the idea that consciousness is really fundamental and not right and that consciousness that time and space and dimensions and other dimensions are emerging merging from essential either the coincidence is created around consciousness and so I quietly try to develop this in my own little corner I'm not ready to punish anything about it I try to Center on coincidences and it's also something that all of a sec please then the moment yourself really placing your attention you will need to become a reviewer the moment you start\par

(1:05:40) creasing that some of the states of consciousness strange things happening then that sometimes every difference it's a little bit like we need a Google search then you get three references that are interesting and you can find under another things that you can understand what Google would think that it's related that you know it that way some of them are amusing just meaningless coincidences and I think that's the indication of how bad like

see the information universities at some point somewhere in will helps to wait outside\par
 (1:06:16) in order to restate relativity quantum mechanics and then that in order to mean
 function I'm not the one who is going to do that I took its overnight degree [Applause] where
 we ended your documentary here is very refreshing because you not only present in though
 as a special abilities are gifted but also if we're training they're multifaceted way gifted
 person an artist a man very comfortable with the sexual orientation minutes who can
 describe this whole pretty much in action in a short a live body so what\par
 (1:07:03) inspired you mentioned briefly earlier some of your what inspired to direct a
 documentary one point why is Inco more relevant now than say on years ago over ten years
 ago what so why do we why is a single solid form I would I would start at the kitchen
 whatever relevant because I feel like in those always being relevant with the new different
 groups of people it's been evolved work I think this period of time they happen to be more
 spotlight on them really because if you state system early and his news alley\par
 (1:07:51) Earth Day is very carefully very selective about where they're pleased English legacy
 and actually when his artwork a locust now resides at that ABAM the American visionary Art
 Museum of Baltimore and there is our whole group of people that are viewing that artwork
 every day whereas prior to this you know Ingo and a lot of different parts in science that he
 was very private about and for example a lot of those paintings nobody ever got to see except
 for those of us who will put enough to come visit him so that's one aspect of it obviously\par
 (1:08:34) uwg is a big part of that as well my own role with it is that I really the estate wanted
 to preserve you know in both legacy and so they commissioned me to work on the film about
 him and it's what I'm doing and I consider myself very fortunate you can see such remarkable
 subjects and he's contributed to so many different levels I mean the whole biosphere is pretty
 remarkable never believed my first being of English there's a novel bottom and altar rules
 mine what's the name of the Nam if\par
 (1:09:25) there's something special but I thought not now because after reading it all it's
 almost like we were talked about earlier in our bill time machine the power of the image that
 he conjures is that at Apple now I want to go ahead and just develop my mind really push it so
 it on a whole new level and I thought they're really I think that's part of that that legacy it's
 really no I think it was if you want us to do now to our English stated yet seen you being
 remote view the Dark Side of the Moon\par
 (1:10:00) but yet within the remote viewing particles at this phone's information so no there
 has to be verifiable but more interesting he mentioned that he had seen some killing
 structures or artifacts can you please elaborate oh this is really challenging because it's an
 amazing huh we don't actually have published verifications that materials that are on the
 other hand given the quality of this remote community over many aspects i wouldn't reject it
 out of hand this couldn't constantly be so it's i'm\par
 (1:10:44) not a gray shelf and I keep looking wherever I can to see if we're going to get some
 verification of it and Jacques mentioned about coincidence is a lot of coincidences behind that
 because the fact he got had that hearing was based on a very deep black program and other
 people involved were running into an alcohol places and it's a whole scenario there which you
 get by reading this book penetration so I thought I think there's some possibility that it might
 eventually be verified certainly in the\par
 (1:11:24) case of for example seeing the ring around Jupiter that's mentioned in the film Carl
 Sagan would no one knew about Carl Sagan showed up and read the transmittances this is all

garbage I only see stuff in there that you get out many encyclopedia and then these guys things are just dead wrong right rings and I'm Jupiter who turned out more than one that NASA flyby colleague after there there was this human limb was definitely unknown so given that he would often come up with things that turned out to be\par

(1:11:59) unexpected but turned out to be correct I get that some fair awesome I remember back in 1995 was Washington nice little copy and we'll talk about the room when were you in it's been shut down in the army side that was just not worth it so you know obviously a lot of books have been written about it so Tom in your opinion do you think they just gave up on it or something probably it might be something going on first and I really agree named it may be discounting black or don't call me I'll only say\par

(1:12:47) that I do not know a remote giving program I'm sitting in the government today if I knew I couldn't tell you if I told you I'd happy to know actually there is a new book out called phenomenon by any Jacobson in which she has looked into this wonderful history of the program and then she really got into research of what's happening now it turns out that she has found various programs the Navy and elsewhere all got you language since making the fact that many examples come you know Afghanistan\par

(1:13:42) and Iraq Wars where troops would get flashes of intuition to not to being they say their group as a result so actually there's a whole neural physiology and psychologically oriented thing so it's showing up again underneath so let's do not have the bad nature you started UFO extensively during the UFO experience there a connection between remote viewing UFOs and other paranormal phenomena we don't have time for the long and short answer there you know scientifically both are very\par

(1:14:48) interesting because they ask the same the same type of course you know what is consciousness where is space and time and how can we learn about the universe and we know that eventually we are going to meet other forms of consciousness in space that perhaps the UFO phenomenon is teaching us something something more that's where every two basic questions we're asking in physics and again I think that's that's why we should be interested in people when you really get down to the bottom they may ask the see\par

(1:15:28) see they may teach sing on the same problem - Jeremy search really does cover a variety of topics from reviewing to all the way on harnessing was it the Casimir effect zero-point energy so when is there a common platform daddy nights these well we live in that in the universe everything has relationships to everything else so in fact particular area that I've been interested in underlying so-called vacuum fluctuations businesses recognize that much of the physics we have gravity or magnetism whatever all emerges from this\par

(1:16:30) underlying see much weight energy and it's pretty easy to when you look at the details under tables are a lot of elements hearing sound about my consciousness its own fact a physicist a poem talked about whether there's the underlying implicit order whereby everything is connected and then there's the so-called expert earlier which is matter and so on emergency so for me it is all interconnected it's all emerging from the common base and so on itself physics is trying to get at the root of that economy's big challenge with is\par

(1:17:15) absolutely addictive error statement to save in physics to talk about the concept of nonlocality see two beautiful tones going in opposite directions they actually no information can catch another facet in this real life I think they know each other instantly if you fear and the fact that I hypothetically mom it's a model that consciousness may have some non-local properties and maybe I did at the lowest deepest level upon which everything else emerges

I'd say that's absolutely perfect statement so\par

(1:17:59) you know so the end let my people on the street you know we don't know much about remote viewing over the first thing that comes to mind it's obviously well we won't be able to how come you're not you know predicting lottery ticket [Applause] truth is they are but their uses in quiet I'll give an example my wife was founding a grammar school and we had all the teachers hired and suddenly we were \$25,000 short and it's open the doors and so I went to a wealthy dentist in the area and I said\par

(1:18:45) would you give it 25 thousands on the shorter school he says a lot read about you you the ESP prove a negative sir I don't see ya tell me what I do silver futures if you people can tell me what's happening the silver futures I will follow your bet and I will give you ten percent of what I make don't worry cuz this money and we'll charge it so I took on the challenge to do silver futures I couldn't go to military remote viewers and I can you help me out of this but by then we realize that disability is distributed\par

(1:19:22) among the entire populations of the bell curve just like we have virtuosos music and you get total deaf people and everybody can sort of you know learn something same thing of not viewing that's what we found so it's expanded stage procedure that angle had developed I then went to the board of directors in school said yes what we're going to make money so if you just know you know how to do this you know I'll tell you exactly the procedure because when you leave here today is you can use this if you want to you might\par

(1:19:56) say I'm going to ask someone so you just fill me up physically down well that's good too analytical that's not going to do it so what I would do is I would just pick two objects let's say an apple and crew so let's say I decide well if it goes up tomorrow showed up an apple that goes down and then Shawn opens this is something you can all do to figure out who's going to win the Super Bowl or whatever so anyway each day I take two new objects my board of directors would run through in crash\par

(1:20:27) course two stages and they would describe the object where it's going to happen the next day make a long story short we went to the market for 30 days he made \$250,000 and we got 10% which is \$26,000 it does so for those who are you know they're there many would agree instead of a hundred for real spirituality is in sort of we'll see we'll think that will study remote viewing or starting special skills is the way to access that so here's one answer to the perils of what is your opinion that it happens through\par

(1:21:11) two ality I'm not just referring to being kind to others and beings or what's something more than we all connect at a really deep level is it an alternative to other practices such as yoga or meditation or this is something that we can follow with that in mind not just accessing information what the Russians are doing but we just get a little more connected that's sort of a global living entity well I see you as the information channel for the viewer to be able to perceive information about other times and places and maybe\par

(1:21:51) dimensions I don't really see the connectivity with its spirituality it's sort of like saying how does the internet for the fact of your toilet either both information channels I do believe the remote viewing helps us to better understand we are more than our physical body but I don't get much into spirituality from say the experience of remote viewing certainly viewers does tend to bring why the idea there isn't really as warm and in fact this is a perfect example one of our remote viewers we brought in we wanted\par

(1:22:46) him to effect a very sensitive magnetometer so as we're sitting there waiting to start the experiment he just happened to think of the magnetometer they saw the little and then

push started something else is sitting there and he just slightly thought of ninth Army in the neighborhood and he suddenly got the insight that oh my god I mean even when I think the reach to my coffee come there's an effect on the coffee cup they sought out the feeling that that was that must mean that we're all interconnected let me think about other\par
 (1:23:27) people and some fact there's some really big thing actually dropped down in program to study with Tibetan I know and these for him it did to have to be open the gates the spiritual I agree with come to myself it's not too connected with spirituality but anyway we'll talk about reality boxes and I think remote viewing is proof of actually breaking out of your reality box and that model what L said I think it is a channel of information but when you practice it makes you aware of that of that\par
 (1:24:32) connection when you took and if that connection exists that means it opens up an entirely different way of looking at life you know connect life looking at next seeking excitement of the error here movies was about a our Intel is AI going to suffer us to be better let us take including reasoning intelligence site and it will if we don't recognize I'll stir in solidarity and this is one of the one of the aspects of it that we should develop Pat panel there was a college you talking 50 you do kind of travel one of the\par
 (1:25:28) purposes to go back to the God to talk to God and come back to program common and I think there's several that I became England's writings where he has an instance they got like figure appearing in his a logic group and a couple things so and then you think of English art particularly I mean in the books that he edited that was sort of a continuation of dr.\par
 (1:26:08) Bernie's Tigers book called tonic art and I think it is definitely part of been tapping into sort of this may because it may be individualistic kind of spirituality and so maybe gotten remote viewing as a practice per se but in go in his pursuits of artistic pursuit and interest in understanding his world I think definitely it was some sort of spiritual God God that God got something up aspect to anything about the light three repeats all the LD art of the appearance of God and divine beings so I would say that that is actually maybe a very profound aspect of\par
 (1:27:06) it and Mary apparitions of Mary and there's just I think a good lot of examples of that people's work Sumerians missions and funny mention reality reality boxes yeah because a familiar public Robert Anton Wilson talked about reality tunnel actually had the privilege of us moon deities skew get it all on the same wavelength and so you know when you people go out of the street and they're going to talk to their friends and well maybe the most analogous been having scientists those signs on the white wasting time sir what\par
 (1:27:53) is your answer I think my some people must I just believe and bother they're not a certain level well how can you impart any information to them then maybe we think your atomizer about the people in the world seem to fall into two categories and hearing about among you those who investigated know it works those who don't know it can't so the best thing you can do talking to people my identical is to try to get the particulars continue agree with that what you can do is explain that things and it exists\par
 (1:28:51) think that some people are better than others and that we can gain or either enjoy it or use it or easily we're aware of it and then there are movements probably isn't going to have any medium which I've said it's just another thing that there are there will be moments in the person's life where either striking coincidence encounter with with someone or you know inflating their moment out of all control and really make them aware of that variability

and I think explaining that it exists and how it\par

(1:29:42) works helps people integrate with in times when it happens so kind of a special collection stuff like people's papers and all the annotations in commerce books I think that it's not to get to artefactual about it but there is something transformative about touching the papers of someone which has lasted beyond a human lifetime and it is that sort of that information sort of floating free and intended of time estate Special Collections materials and Ingo Swann papers in particular when you see that Arai binders when you're reading all of\par

(1:30:26) in those creative writings and technical report on coordinate remote viewing and you are seeing sort of this vast evidence of ego thoughts and practices it is a way for you to tap into that it is really I mean it is it is changing it changes you when it was found level and I think that sort of quite a factual evidence there's there's that it is going on or our side of time base I think that's I have to figure some vacations from the library thank you doctor rather for asking it so one way we provide access to English\par

(1:31:18) papers which are completely open to the public is because they're in your back 121 boxes of papers write it extended and so what we have to do is right now we have an iterative process of providing sort of an item or a blocked folder level inventory of English papers and you can just google and put in quotation marks English want papers and you'll hit on the finding aid to his papers and I think that you know I'm hoping that that scholars will come and do an edited volume of English letters an extensive correspondence which is\par

(1:31:59) fascinating and we are in the process of indexing that in an item level so you can do a keyword or a name search on that and we do have an extensive number of people who are coming in chasing those papers for a variety of reasons either their you know their remote viewer practitioners or their historians looking at the history of cool the Cold War America and relations with Russia so a lot of different applications of psychologists quarters but I can take like 30 seconds to tie into the previous session about time travel about the\par

(1:32:41) question from the third aisle about what if you just went back and look but you didn't actually travel one of the sites that I was given I was given coordinate I described small reading treaties birds singing beautiful it was very pleasant there and then I was told stay where you are and go back to in the 80 a day about seven or eight years earlier and then I was getting acrid smells it was a forest fire so in today's date I was there it was very pleasant because everything was growing back but they took me back to another date and there\par

(1:33:22) was a forest fire there was very unpleasant so there's I don't know if that's time travel but that's going back in taking a peek one liner each what do you write hi oh really now this could go on to another workshop look if you jur be moved you present future very breech many of the omnia tones officers who now are retired from the service teach remote viewing courses so in fact they're revoking courses going on all over the place and I still at least once a month to give a PowerPoint presentation to one of\par

(1:34:21) them no viewer teachers so the fact that it's proliferating out there and they have conferences conferences where people bring up the latest results they've gotten on solving crimes or whatever I mean I think it's just seeking out so that's I think that it just goes utility right I would just like to say it's a director I get one of my true statements and that I hope that film on Ingham actually inspires a whole new generation of remote viewers and people that are way outside the military\par

(1:34:58) context as well you know gets in general especially younger people there were two paths to discussion lunch discussion I had with Ingo about addressing and so here is Engel who is able to obtain information who some way of addressing the target and what what invented was sorry with oxygen nitrogen and but there is no nothing secret about that you could use anything else as there's an utterance the second part of that was if we do that you know as a computer scientist as an information service interested in\par

(1:35:48) consciousness I'd like to know what is the agonising scheme used by consciousness then I thought if this works I mean responses of the world are going to want to go in that direction because it would be a very fertile line of research of fundamental research on on communication and this was never done and an innocent white was never done was never done because it worked and as soon as the practice of remote viewing would see something that does work then it was immediately reply you know the series of new brilliant series\par

(1:36:30) of experiments and the sponsors were not from the mental with nothing fundamental research so another computer research and they never circled back to the fundamental information science questions that this was obviously raising so I'm hoping that at some point somebody we have an academic program in it bring on working with a doctoral students as you might have know sever Kathleen and one of her experiment is using remote viewing a microscopic level of looking at pathogens diseases fortunately I'll be informed that we\par

(1:37:26) went will within China drama what I'm going to do is I'm going to get three questions of the audience but this is the caveat going to be short success into the point we got three minutes okay so I'm just going to weber is to go there quick answer correlations in two ways first people that can go and many others on the program at UFO experiences and to some extent I wouldn't say that let's not go into you know the UFO mainly psychic you know but they took I think it's fair to silly to all of them\par

(1:38:22) it was one of the factors that weight and then army idea that there was something more to Thailand space but we couldn't see everything the other direction is you know many people after the street who have had little experiences it's not just seeing spacecraft there is a lot more to it closer you are to the object the world the would be an impact on your consciousness physical medical physiological impact on your body on your your existence I don't know dreams later on your relationships to matters and so on so\par

(1:39:08) and it goes back you know all the way to some of the abduction stories that we hear and so yes it works it in both of these dimensions yeah that can over the years there's no man in the high castle -63 I wanted at the third key dick festival I made a three quarters to Phyllis and one in March I am the living proof that French your theory that if you can use on coincidence and that ballast exists works and I'd like to talk to you after it thank you how I got the book that I what my question is for the\par

(1:39:54) remote viewer I am a martial art famous person and I'll study the art of pushing calm which is the ninja martial arts in Washington he did me more doing for the CIA even believe was possible you guys know about that that gentleman over there I'm wondering it Bob there was humbly commit in the film the scientists said that brain scans the cervix of our collection and filter was made learning about the relative distribution of this ability or the potential for visibility in the population is what some what\par

(1:40:41) kinds of characteristics in a person might lend want to be susceptible so this kind of potentiality and corollary is is there anything being studied on the interface between

psychiatry neurology and experimentation with these the underground psyche that movement of ayahuasca and psilocybin and me with respect to remote viewing and related phenomena okay regard to the ladder and not not aware of any certainly good decency and Amity programs no drugs whatever use or preparing it was considered distraction so the first part\par

(1:41:31) order a bell curve maybe we took so much evidence for the bell curve it got to be that for example if super sceptic from CIA showed up and he just couldn't believe what he can see we always flip the coin decide to make him do it and axle state my program point he was very creative because he said even after seeing the mug doing experimental woman but probably told in advance or whatever so they made him do it first time we made him do it got to create himself come back he says that you had speakers there walls\par

(1:42:14) I don't want anybody mess anymore and so yeah knock knock down his objections one at a time and so it is really more strongly represented in the population and even think for sure ayahuasca I had the opportunity to discuss exactly that point with Terence Mckenna in my many question was that really means exactly the opposite in renewing you know exactly where you want and you start with a set of chrome he needs of some kind of taken you go to that place not to in IRS camera who these extraordinary experiences that\par

(1:43:07) every time you you go to some place and that you can never get back to the same place and to me that's really the problem with a lot of the you know altered states using drugs or missing other techniques if they are not formally you know linked to something physical we know doing is very fun this question um before we only doing three we can talk to us actually privately he'll be uh what about on that note I want to sink everyone [Music]\par

(1:44:22) you [Music]\par

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